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### SUPPLEMENT NUMBER 1 ON WAR MEDICINE AND SURGERY:

The Types of Injuries to be Expected in Air Raids.

#### SUGGESTIONS CRITICAL OF AND ALTERNATIVE TO THE OUTLINE OF A POSSIBLE SALARIED MEDICAL SERVICE, AS SET OUT IN THE REPORT OF THE NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL, 1942.

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##### In Preface.

THE "Outline for a Possible Scheme for a Salaried Medical Service", which was contained in the report of the National Health and Medical Research Council, was one of the most important documents ever received in dumb silence by the medical profession of Australia. Not only was the report a credit to its framers—a very able and complete attempt to deal with a large and inchoate subject, in fact, probably about as able a statement of facts and figures as could have been put out by a body of men when the facts were largely unknown and the figures mostly unreliable—but it also bore in itself evidence that some thought had actually been given to the everyday problems of medical practice. None the less, as is inevitable in so large a piece of theoretical planning, the report contains much, both in principle and in detail, which requires frank criticism. It is a pity that the preoccupations of war and the menace to our whole social structure have caused it to make so small an impress on the collective mind of the medical profession, because the preoccupation will pass, the menace we hope will be lifted, and when the stirring times of peace and reconstruction come this report will be there, in the office of the Minister concerned, forming a basis for the reformation that he will be eager to put into action, and doubly valuable to him because it originates from a body whose composition is

almost entirely medical and scientific. And no answer to it will be available. Criticism of it will have to be largely destructive and put out with political haste and political fervour. I do not say—indeed, I do not believe—that this is a time at which the various Branch Councils of the British Medical Association ought to sit overlong in deep deliberation over the possible future forms of medical organization; but it is certainly advisable that criticism of this report, and suggestions for its improvement, should be available at as early a stage as possible for the study of every medical man who is interested in the future welfare of his profession.

The report is so full, and covers so much of the ground, that it seems to me that it must provide the concrete basis for discussion in all serious attempts at future medical planning; and the first duty must be criticism of its principles, followed by an endeavour to show how they may be replaced by further planning on better principles. I propose to follow this course in the present paper.

##### Part I: In Criticism.

###### Parallel Private Practice.

It is affirmed with definiteness in this report, and it is stated to be the considered opinion of the reporting Council, that a national salaried service is not inconsistent with the retention of private medical practice and of private hospitals. I doubt whether the ill effects of that principle have been carefully studied. I can quite imagine that for the purpose of making the idea of a national salaried medical service more acceptable to people generally and to the medical profession in particular, it is politically advisable that this should be stated; but if the principle were adopted, it would in my view have disastrous effects both on the completeness of the scheme and on the medical profession itself. Unless all doctors come into the scheme, with the possible exception of the consultant specialists, there must develop rivalry, com-

petition and the reduplication of effort. How, for example, would the service deal with an "A" class station in the country if a private practitioner who did not want to enter the service was already established? Would the authorities withdraw their proposals? Would they put in a national unit to compete with him? Or would they more tactfully put one in a closely neighbouring centre to make the competition a little less obvious? And what would be the professional relations between private practitioners and the members of the national service in suburban and industrial districts? Obviously, they would be very bad. It would appear that unless the new service is introduced entirely and completely to replace the old one, friction cannot fail to be produced between the members of the two orders. The private practitioners would find that they were subjected to competition which they would regard as very unfair. And more, they would see their principal assets, the goodwill of their practices, being deliberately devalued and siphoned from them. This seems to me to be a most undesirable position to permit, whether it is allowed to develop into actuality or whether the threat of it is used to compel unwilling practitioners to join the national service.

#### *Government Department Status.*

The next principle that I would attack in the scheme as outlined in the report, is the suggestion that the medical service should be a regular government department. It seems to me to be the reverse of desirable that such a highly technical service should occupy that status. The advantages which are held out as accruing from such a constitution—namely, the right of collective approach to an impartial tribunal, the Public Service Arbitrator, in respect of all questions of salary and conditions of service, and the right of every doctor to appeal against the promotion of any other doctor—would be of value only to medical men if they were actually under a centralized administrative control. With a properly decentralized and professionally constituted control, the advantages claimed would be of no value whatever. It was necessary, and it has been advantageous, to devise special technical controlling bodies for such technical services as the Council for Scientific and Industrial Research, or for the State Electricity Commission of Victoria, and it would surely be equally necessary and equally advantageous to create a similar technical control for a technical body of such importance as the national medical service. In my opinion, the proposal to put this service into the position of a government department will prejudice at once its chances of being successful. To put the hospitals service directly under medical control, or to replace hospital managers by medical men, would lead either to diminution of the efficiency of the institutions or to waste of medical training of the men withdrawn from their own particular work to carry it out. This is extravagant when men without medical training can administer hospitals perfectly well, provided that they are prepared to accept advice from medical men on the more purely medical aspects of the work. If it is uneconomic and wasteful for men with a purely medical training to take over the administration of non-medical work, it is even more disastrous for men with no medical training or background to attempt to control the professional service. A medically trained man may have a natural aptitude for or may easily learn the principles of administration; but a man trained as an administrator, without medical training, or long divorced from clinical work and its problems, cannot hope to appreciate the atmosphere in which these problems must be met and solved. That atmosphere is a very real thing. Among the various absurdities which are lumped together under the term "the relationship between doctor and patient", there is one factor which is clear and essential. The doctor must be prepared to make a judgement, and to take the responsibility of acting on it, and the patient must have sufficient respect for that attitude to allow him to carry it out. Without that, no curative work involving risk or discomfort to the patient would ever be done. The fact that both the patient and the doctor have, and exercise, the right of appeal to a senior professional man, the consultant,

does not diminish in any way the importance of the doctor's right and duty to act on his own judgement at all times and in all emergencies. In no other calling are individual judgement and individual responsibility so predominant. And it would be intolerable, and would cause the breakdown of the efficiency of the whole system, if the doctor were in exercising that judgement to be subjected to the questioning and censure of men not cognizant of, nor sympathetic with, the whole atmosphere and circumstances conditioning his action. No doctor with any sense of his professional responsibilities would submit to it. On the other hand, a doctor's whole training accustoms him to rebuke and to correction in professional matters from his professional superiors. The burden of this argument is that with regard to such matters as the mileage travelled, the number of visits paid to individual patients, the amount and nature of medical remedies used, slackness or otherwise in pursuit of a doctor's professional duties and so on must be primarily regarded in an efficient medical service as a matter affecting the proper application of materials to the work in hand, to be judged and remedied by professional men—not as a matter of finance to be adjudicated by clerks and accountants.

Complaints on less purely technical matters can be as well adjudicated by professional men as by laymen. The very pride in service which men will still hold in a properly managed medical service will make it a matter of urgency to its professional controllers that offenders against the public good shall be brought to book. But among all the long list of civilized occupations, there is none in which the expert and the lay person speak such different languages while using the same words as in matters pertaining to medical practice. A complaint against a doctor regarding the treatment used can properly be judged only by medical men, who can make due allowance for the extraordinary manner in which patients distort the technical statements of doctors when repeating them. Complaints of incivility and inattention, again, can be justly judged only by men who know the characters which both complainant and doctor bear among the other members of their community. For all these reasons it is essential that the control of medical matters and medical men should be in the hands of men medically trained and of high standing in their profession, and that it must be decentralized to the utmost degree possible. The State medical commissions must trust to their area committees to see that justice is done and that their areas are well served. The area committees must trust the heads of clinics and hospitals similarly to supervise the work and service of the surgeries and practitioners within their sphere. The Commonwealth medical commission must satisfy itself that the State medical commissions are composed of able and good men, and are fulfilling their functions to the general welfare of the public; and there the direct control must stop.

Therefore the suggestion that the new medical service should be a government department, with its head office at Canberra, and its "please explains" reaching out like tentacles into the countryside, fills me with apprehension. I find the whole method of administrative control envisaged in this report open to the most earnest criticism. The alternative method of control set out below seems to me to avoid most of the dangers that must be avoided, and I cannot see that it is any less practical.

#### *Centralized Control of Clerical Staffs.*

This principle of decentralization of control should extend also to the office staffs. A direct relationship between the medical controlling body and its clerical staff in State, area, hospital or clinic is competent to produce far better results than a system whereby the clerical staff is responsible to a head office in the State or the Commonwealth capital, so that reprimands and so forth have to proceed through "official channels". Any conceivable system can be made to work; but of the two, the direct relationship offers far less opportunity for the likelihood that bureaucracy and "red tape" methods may insinuate themselves into the smooth workings of the machine. The principle of the medical service is the betterment of the



communal and individual health. With large centralized staffs there will be a constant danger that too much emphasis will be laid on the filling in of forms and on the accumulation of clumsy masses of records and dossiers. This will be especially likely to happen if large staffs are estimated for in the first place and housed in large offices with the duty of finding some way of justifying their existence. Moreover, it has been an unfortunate experience that the administrative side of a government department tends to regard itself, and even to be officially regarded, as in some way superior in status to the technical side. This tendency must not be allowed to develop in a medical service in Australia.

#### *Administrative and Specialist Salaries.*

The tendency appears to me to be in evidence in the scale of salaries suggested even in the first outline of the service as laid down in this report. It is undoubtedly necessary that men of ability should be tempted into the higher administrative posts, and that they should when there feel in no position of inferiority to men in the highest paid posts in other branches of the service. But it must be again emphasized that the primary aim of the service is not its administration, but its technical service to the community. It is of more importance that the consultant specialists in their various lines of action should be the best men available to the service, than that the service should be perfectly administered, but with men of inferior quality serving in it. To lay down a scheme of salaries, therefore, in which the administration chief is placed on an absolutely higher plane than the consultant specialist, appears to me to be evidence of a wrong and dangerous tendency. There is no valid reason why the highest paid administrator should be paid much, if any, less than the highest paid consultant specialist, being himself a specialist in his own sphere; but in a technical service he should not be put on a plane granting him any sort of theoretical superiority. Young men of ability who enter the service after long periods of scientific medical training should have their ambitions primarily centred on reaching the highest technical posts offering to them. Sufficient of them will be attracted by administrative work to ensure that there will be no big gaps in the administrative system; further, they will in the long run not be worse administrators for having had to pass through the ranks of general practice and to reach their first steps on the administrative path through election to the area committees by their fellow medical practitioners.

#### *Position of Medical Officers of Health.*

Another questionable principle is involved in this scheme, also in the realm of control, and that is the tendency to regard the public health officer as in some degree the official superior of the practising doctor. This tendency was seen in its supreme form in the recent attempts to legislate a medical service into being in New Zealand; but it is in constant evidence in most such schemes. The reason is obvious—the medical officer of health is part of an already existing service in a way in which the private practitioner is not; he is accustomed to the technique of office management, of statistics, and of the general control of departmental routine procedure; but it does not take into account the fact that he is by just so much divorced from the atmosphere and technique of clinical medical practice. Fortunately, the public health service has produced a fine type of man, capable of making an excellent administrator; but with the large extension of the organization involved in the creation of a national medical service, he must lose what touch he now retains with his professional brethren if he is to be put into the position of administering the service. There is no real reason why the public health branch of the service should be given a position of superiority over the clinical side. With the development of a national medical service, the present gap between the preventive and the curative sides of medicine will be largely closed. This will be facilitated when the more impersonal and non-medical side of public health activities—the implementation and policing of the various

legislative acts—is removed, as it must be, from the sphere of medical men to that of lay inspectors. Then, when university education takes real cognisance of public health needs and measures, and when junior medical practitioners take an active part in public health work as part of their daily routine, the two branches will harmonize rather than conflict, and the man who takes the trouble to interest himself specially in public health work will be as he should be, the equal and colleague of the man who trains himself specially in medicine, surgery or obstetrics—not merely his official superior.

#### *Consultant Specialists.*

In the matter of specialisation, too, there is much that the report appears to neglect or ignore. It appears to me that insufficient distinction is made between the different meanings of the verb "to specialize". The most valuable man in the medical profession is the consultant specialist, whose work is limited to his specialty, and whose knowledge of it has been built up during years of practice, with particular study of the various aspects of the line of work in which he has interested himself. He is the final court of appeal in the solution of difficult clinical problems; he is the teacher of the young men entering the medical profession, and sets them a standard of knowledge and behaviour, on which their pride in their profession is built. In surgery also he must develop perfection in technique and manual dexterity as well as profound knowledge and judgement. Such men cannot in any scheme be scattered about the countryside. They must remain in contact with the teaching hospitals, in centres of population where the large numbers of patients—the "clinical material" which they need for the proper performance of their functions—can be directed to them. Of them there are comparatively few—possibly 100 out of the 1,500 doctors practising in Victoria. One cannot imagine them in any medical service being distributed other than as they are, and it is not likely that any increase in their numbers will be required. It is to them that the vaunted principle of "free choice of doctor" most properly applies, for the choice of consultant is generally made on the advice of medical men, who make it on the grounds of knowledge of the skill and reputation of the man concerned. They should not be affected by any attempt to fit them into a geographical scheme of specialist teams, whereby their efficiency and importance would be diminished.

#### *The Specialized Practitioner.*

On the other hand, the specialized practitioner is capable of very different treatment. He is the man who does general work, and who discovers in himself an aptitude for and an interest in a particular line of work, and fits himself for that as well as he can. These are the men who, as far as one can see, will have to do the bulk of the work in country and probably in suburban districts. They are doing it now, and doing it on the whole very well. They take time and trouble to learn what they can in their own line, and many of them have taken higher degrees in it. Some of them will show knowledge and judgement, and will obtain the respect of their colleagues to such an extent that they will pass into the ranks of the consultant specialists. But in general they will pass their professional lives doing at least some amount of general practice as a background to their specialized work. This is the only possible economical use of doctors in the hospitals and clinics, in the country at any rate, and I should think also in the suburban and industrial areas. It is my opinion that to put the suggested specialist staff of a "D" class centre into the largest extra-metropolitan centre in Victoria, Geelong, might well be attacked as wasteful. To put them into such places as Warrnambool, Hamilton, Colac, Sale and so on, would be more than wasteful—it would be tragic. How the needs of the future will develop under the influence of a national salaried service, one cannot foresee; but the utmost which one can stretch one's imagination to comprehend would be four "D" specialist staffs outside Melbourne, at Geelong, Ballarat, Bendigo, and perhaps on geographical grounds at Mildura. And in these places I should suspect that

if the specialists did not occupy themselves to some extent with general work, their time would be far too filled. This arrangement of specialist staffs is far too rigid, and not, I would suggest, in touch with the actual needs. The same criticism applies with at least equal force to the provision of personnel for the other specialized branch, public health. I have the authority of a medical man with twenty years' experience in active full-time public health work, that one senior and one junior public health officer with the assistance of four female health visitors should be ample to carry out all the regular work now required, or likely in the near future to be needed, in what is proposed in the outline as one of the country "D" class centres—and that is without the fact being taken into consideration that a large part of this work would in a national service be done by practitioners in "A" and "B" class centres.

#### *Extravagant District Administrative Staffs.*

If one looks at the administrative side of the work as another special branch, one finds its scope similarly aggrandized in the outline presented, not nearly enough note having been taken of the possibility of using the present medical personnel in these somewhat specialized activities. If a modern hospital of 100 beds, with its nursing and domestic staffs, its supplies and the complicated accounting required by the central Victorian authority, can be managed efficiently by a manager and two girl clerks, there seems no conceivable reason for the provision of the relatively huge administrative staffs suggested in the outline.

#### *Dangers of Office Planning.*

There is, in fact, throughout this part of the outline, the same constant evidence of the same office planning that makes everything theoretically correct, without due regard for local actual needs. The dangers of allowing such office planning to be translated into actual being is great, and the result would be the setting up of large, unwieldy staffs, anxious to do something, and hence protruding middle-finger fingers into delicate matters. I believe that a really good service will be achieved only by the deliberate avoidance of such office planning, the service as it now is being taken as a basis and gradually moulded to meet the requirements as they reveal themselves. The grouping and analysing of the country districts in "A", "B", "C" and "D" class units is a convenient one from the point of view of office estimation of what may be required, and it may even be a necessary preliminary. But to act on that grouping to the extent of organising such areas into headquarters with surrounding districts, each provided with huge specialist, public health and clerical staffs, appears to me to be a total departure from reality. In making that statement I am not forgetful that in the early pages of the report this is in some degree admitted. It requires a forceful statement of the alternatives to prevent an officially outlined scheme from being translated into actuality by Ministers who find it easier to do that than to search for the alternatives.

#### *Inadequate Provision of Consulting Rooms.*

There is another point in this outline, which strikes a man who has spent the greater part of his life in clinical practice as so peculiar as to give evidence of even further departure from the realities of medical work, more particularly in the country. Apart from this light thrown on the outlook of the framers of the outline, it is not important; it must be corrected at some time or other; but since it has that aspect, it is due for criticism here. The accommodation for a "C" class centre of four practising doctors—general practitioners—in two consulting rooms. For a "D" class centre of twelve specialists, not counting the four general practitioners, three consulting rooms are allotted. I may be unique in my feelings about consulting rooms; but to me they represent the doctor's professional quarters where he sees his patients and their relatives, where he keeps his instruments and his books, where he does his correspondence—in fact, where he

spends the greater part of his working hours. How can twelve men, or even four, work in three consulting rooms? And what are the other nine to do while their three lucky colleagues are in occupation? The picture brought to my mind is that of a public telephone booth at the rush hour. The provision seems so extraordinary that I feel that there may be some simple explanation which escapes me; but for the present, it must appear to me as a fresh piece of evidence of the lack of touch of the administrative mind with the realities of clinical practice.

#### *Comment.*

There are many other points on which criticism could be levelled in detail, and, I admit, with every possibility of very great divergence of opinion in the views of the critics. It would seem better at the moment to confine oneself to the criticism expressed of the principles involved in this attempt to frame a vast new service, and to set forth an alternative skeleton scheme, in which it may be suggested how such a service might be constituted with the objections removed, or lessened.

#### *Part II: The Initiation of a National Medical Service.*

In the initiation of a national medical service, it must be remembered that the object is not to bring into being an entirely new social structure, but rather to eliminate the faults and to increase the opportunity for efficiency of a service already doing very valuable work, and with a knowledge of the problems involved unique among the elements of the community. The first step, therefore, that the central Government should logically take when the decision has been reached to make the practice of medicine a national concern, would be to gather information as to the exact facilities in personnel, equipment and accommodation which are available in the present service, for the use of the new one. This information does not exist in an available form anywhere at the present moment.

#### *State Commissions of Survey.*

The Commonwealth Government should therefore procure the formation in each State of a commission of survey composed of medical men. Such a commission might well be composed of three practising doctors: (i) a senior practitioner in medicine, surgery or general practice of high professional repute, practising in the metropolis, (ii) a senior practitioner of high professional standing in general practice in the country, (iii) a senior practitioner of high professional standing practising obstetrics. Each man should be assisted by one or more junior practitioners with experience in general or special practice. They should be instructed to coopt on temporary appointment the services and assistance, whenever required, of any person whose knowledge and experience would in their opinion be valuable for the purposes of the survey. A secretary, and such office staff as is found to be necessary, should be placed at their disposal. Salaries, travelling expenses and all other expenses of the survey should be borne by the Commonwealth. The survey should be directed to the following objects:

##### *1. Medical Personnel of the Present Medical Service.*

- Location, age, experience, and inclinations for special work.
- Professional income and professional expenses.
- Affiliations with hospitals and with other practitioners.
- Nature of equipment personally owned.
- Access to other special equipment.
- Type of "surgery" accommodation—whether private house, office rooms or hospital.
- Population and area served.
- Radius travelled, annual car mileage.
- Hospitals to which most of their patients go.

##### *2. Medical, Surgical and Special Equipment Available.*

- General medical and surgical diagnostic equipment.
- Special equipment—for example, X-ray equipment, surgical diathermy apparatus, electrocardiograph, physical therapy equipment et cetera.
- Geographical distribution.
- Value.
- Ownership—whether in private or hospital possession.



**3. Hospital Facilities Available.**

Accommodation.  
Efficiency of buildings and plant.  
Medical, surgical, obstetric and special facilities.  
X-ray plants and pathological laboratories.  
Relation to total area served and to local medical needs.

**4. Auxiliary Services.**

Masseuses and physical therapists.  
Baby health centres.  
Visiting and district nurses.  
X-ray technicians.  
Practising chemists.

When the survey has been completed, and full knowledge of the available personnel and facilities has been obtained and tabulated, the commission has to face two problems: (i) how to mould and modify it so that it shall make an efficient national service; (ii) how to unite it into a complete harmony with the nursing service, the hospital service, and the less purely medical side of public health services. The second is the more difficult problem to solve; but the first is the immediate objective and must take precedence. The commission will therefore undertake the following tasks.

1. It will study the relation of available personnel and facilities to the needs of a national service, and recommend the number, extent, and boundaries of the future "medical areas". (These might, for purposes of illustration, correspond roughly with the base hospital areas as at present laid down in Victoria, or with the subdivisional areas of the British Medical Association, or they might be entirely new creations.)

2. For each area it will appoint an area committee, on temporary appointment only, consisting of a chairman and two other medical men, to make a detailed survey of its own area. These appointments should be part time only, and tentative, so that the capacity of men concerned for service in the future permanent area committees could be tested. A full-time office secretary will be placed at the disposal of this committee.

3. It will study carefully the capabilities of medical practitioners likely to be valuable for service on the permanent State medical commission, to enable it to recommend appointments of real value when asked to do so.

4. It should also, in conjunction with the other State medical commissions, lay down a scheme of salaries and positions for the service. The State commission of survey should then be in a position to make a final report on the immediate financial and constructional needs of the State under a national medical service, which should at the start be based almost entirely on the position obtaining at present.

**State Medical Commissions.**

The Commonwealth Government should then either proceed itself to the appointment of permanent State medical commissions, or should delegate powers to the several States to appoint them, and should proceed to the necessary legislation for raising the requisite funds. The personnel of the first appointed State medical commissions should be appointed by Parliament acting on the advice of the State commission of survey. They should be entirely medical in character, and should include a chairman having personal experience of medical practice, and with him directors assigned to the following functions: (i) public health; (ii) medical personnel (dealing with all doctors in the service, promotions, salaries, records of capacity *et cetera*); (iii) medical education (dealing with professorial and tutorial staffs, curriculum, examination schedules, examining boards, students and post-graduate work); (iv) equipment (dealing with general medical and surgical equipment and its distribution among areas, clinics, surgeries *et cetera*); (v) medical policy (dealing with standards of medical treatment, special needs of areas, standard drugs and appliances, clinical records); (vi) research. The commission should have a secretary qualified to deal with all financial questions, and the necessary office staff and accommodation.

**The Federal Medical Commission.**

The chairmen of all State medical commissions should sit together as a Federal medical commission not less than four times a year, meeting at the Federal Capital. The purpose of these meetings would be to discuss matters of medical organization, and to compare methods and results. They would also submit accounts and estimates of expenditure required for the various States to the Commonwealth Government. A permanent secretariat and statistical bureau would be maintained at the Federal Capital by the Commonwealth Government for the service of the Federal medical commission in the furtherance of these objects.

**Federal Health Commission.**

The directors of public health from all State medical commissions would sit as a Federal health commission at the Federal Capital not less than six times a year.

The chairman of the Federal health commission would be the Federal health commissioner, appointed by the Commonwealth Government advised by the State directors of public health. Parliament and the public might, if it were thought desirable, be represented on the Federal health commission. Its functions would be: (i) to receive reports of public health activities in the various States; (ii) to coordinate these activities; (iii) to render accounts and estimates of expenditure for the maintenance of the public health services of the States and the Commonwealth; (iv) to receive and disburse such sums as are allotted to public health purposes, not including the salaries of medical officers of health in the State services and their staffs, which should be paid through the State medical commission; (v) to manage and direct such public health activities and undertakings as are Commonwealth-wide, and not confined to the jurisdiction of a State.

A permanent office and secretariat would be maintained at the Federal Capital for the service of the Federal health commission, under the control of and paid by the Federal commissioner of health.

**State Medical Areas.**

The State medical commissions, on assuming their functions, would declare the medical areas in their respective states, and direct the appointment of permanent area medical committees for their administration. Each area should be largely self-administered, under the control and advice of the State medical commission, and the various districts within each area should have the maximum possible local responsibility.

**Area Medical Committees.**

Area committees should consist of three men, appointed from among the medical men practising in the area. The chairman would be appointed by the State medical commission, and the other two members elected by the members of the area medical staff; one of these two should be required to have experience in public health work. Members of the area medical committee would continue in practice, giving part-time service to the committee. They would engage such full-time office assistance as was found necessary in each case, the office staff being engaged by, and responsible to, the committee. The secretary of the area committee, however, should not be appointed without the approval of the State medical commission. It is likely that at least the chairmen of the area medical committees would develop into full-time administrators; but they should start as medical practitioners, doing part-time administrative work.

The function of the area committees would be to supervise the work done, and to advise and supervise such modifications of the organization as were found necessary; to allot to their positions new men sent into the area, and to transfer practitioners from one post to another within the area; and generally to meet problems of organization as they arose, after consultation and guidance from the State medical commission, which would be ultimately responsible. The area committees would also be responsible for the issue and distribution of medical and surgical

and other professional supplies within their area. These would be requisitioned for and drawn (i) by individual surgeries from the district clinics or hospitals, (ii) by district clinics and hospitals from the area committee, (iii) by the area committee from the State medical commission. The clinics and hospitals would be held responsible for the efficiency and economy of the individual surgeries, the area committees for the efficiency and economy of the clinics and hospitals, and the State medical commissions by the Commonwealth Government for the efficiency and economy of the State service.

On assuming office the area committee would be supplied with a full list of medical personnel within the area, reclassified according to the grades adopted by the new service. The committee's duty would be to study this list, and to suggest to the State medical commission any amendments it considered necessary. The commission, after consultation with the committee, would accept or reject these amendments as it found wise, and would then send a new completed list of classified members to the committee for publication to the members individually. If any member felt aggrieved at his classification, he would have the right of appeal to the committee against it. The committee would sit to consider the appeal under the chairmanship of the director of personnel of the State medical commission, and the decision then reached would be final. This procedure should be completed within three months from the appointment of the area committees, and the national medical service should be declared in being.

Immediately on the formation of the area committees, they should be supplied by the commission with the full data available concerning the medical personnel, equipment and hospital facilities within their respective areas, this information having been gathered during the preliminary survey. Except that, should it be found undesirable to make public the details of income and expenditure of the individual members supplied by them to the commission of survey, this information could be retained as confidential in the office of the commission. The area committee would be requested to draw up and submit within six months a report indicating the lines along which it considered the future organisation within the area should develop, and to state what buildings and equipment it considered would be (i) immediately necessary and (ii) needed for future development.

### Part III: Development.

#### Peripheral Organization.

To serve properly "one-man" towns in the country, men would have to be sent eventually to places where none have found it possible to make a decent living in the past. This fact indicates that the men sent there by the service would meet with a great deal of idle time; and this would be eliminated in part by greater activity in public health work, such as school and home inspection, immunization, hygiene lectures, home care of tuberculosis contacts and post-sanatorium patients, and also by a closer cooperation with the district hospital or clinic, and by the provision of better facilities for local treatment, such as maternity accommodation and portable X-ray plants. This would be a definite line of development for isolated places. Holiday, study and sickness relief would be needed for men in these places.

Places where at present two men work would present a somewhat similar problem; but the men are in general rather busier than in the small places. For these, public health work might be undertaken by sending an extra man out from the district hospital or clinic to assist them on certain days. And as the work increased a full-time third man might have to be added. Holiday and sickness relief would probably be necessary in these towns, while they were still served by two men only.

In country centres employing three or more men it should not be immediately necessary to provide holiday relief. Much of the demand for *locum tenentes* under the present system is due to financial competition. A roster of week-end and night-call duty should make life comparatively easy, and allow the men working to take holidays without outside relief. In metropolitan areas,

which are much more compact, the distance factor is much less heavily operative, and the problem is rather one of better distribution of available men than the provision of more. There would seem to be no reason why a large relieving staff should be needed in these areas, at any rate until the future proved the contrary.

At the area headquarters the general work should proceed much as at present, amplified by an increase in the public health work, and probably somewhat lessened by the provision of better facilities further peripherally. A considerable degree of specialization among group seniors would probably be necessary in all areas, and perhaps to a higher degree in the country areas, where the factor of distance is more strongly operative. But attention must be constantly drawn to the fact that the curative side of the work of a medical service is being on the whole efficiently carried out under the present system, and no provision should be made in estimates for large extra staffs of specialists until in the future it becomes clear that they will, as specialists, be fully employed.

Consultant specialists would probably be best centred as at present, on the teaching hospitals in the State metropolis. Elimination of fees would make them more readily available everywhere, and junior specialists in close touch with them might relieve them of some of the burden of travelling. In general, the personnel of the new service should start as it now is, and the national medical service beginning on that basis should be allowed to develop and take shape under the influence of need and opportunity, as revealed in the new framework.

This comment applies even more directly to the question of buildings and equipment. If it is remembered that the work is at present being done efficiently, even if not so efficiently as one hopes it will be under future developments, the new service should start on the basis of present facilities, and no large expense should be undertaken for buildings until the needs under the improved conditions declared themselves.

Money in large amounts will, however, be required early, as the need for new construction appears in various directions, of which the following are examples: (i) for the requisite change over from doctors' private surgeries to central clinics; (ii) for the provision of new facilities in districts at present unserved; (iii) for the remodelling of existing facilities for better concentration of the work; (iv) to meet the constant increase in demand that will follow the provision of better facilities.<sup>1</sup> Money required for these purposes should be allotted by the State medical commissions after application had been made for it by the area committee, and after the need for it and the use to be made of it had been properly discussed with men having local experience and knowledge. This method would not prevent many mistakes from being made, but it would afford an opportunity for trial and error on a small instead of on a grand scale; moreover, the buildings would be adapted to local needs better than standard buildings produced as items in a large-scale office plan. Estimation of the amounts required is impossible with any degree of accuracy in the present absence of any data, and should be recognized to be impossible.

The doctor's working centre should as a principle be separated from his private residence; but as the opposite has grown up as a tradition, and as nearly all private surgeries are at present connected with the doctor's residence, it might be better to continue with that condition at the commencement of the service. But with the institution of the national service the type of doctor working in small country centres would change to a very large extent from married men to young single men, and the question of their accommodation, and of the attendance at and maintenance of their professional rooms, would probably be one of the immediate requirements that area committees in country areas would include in their initial reports to the commissions. In the cities, where distance is less and transport better, where extension telephones

<sup>1</sup> In the eight years since the Community Hospital was opened at Colac, the number of beds daily occupied has risen from 56 in 1935 to 93 in 1942; no factors have been in operation other than the provision of the better facility.



may be employed and proper use may be made of clinics and hospitals with larger staffs, this problem would be much less acute.

In small country centres also, provision for the efficient carrying out of maternity work locally would early be found to be necessary, in association with the surgery, and the problem of nurses' maintenance, accommodation and comfort would soon have to be faced, as well as the provision of domestic help. These needs may be expected to vary largely from place to place, and though some standard might be generally adopted, the ultimate planning would have to be largely local. In many places where a doctor is already in practice, some workable arrangement exists which could be carried on and developed.

The same observation applies to larger towns having a district or base hospital to which the reformed medical services would be attached. Here, again, constructional and financial needs would vary greatly; and the main essential would be close liaison and association with the relevant State hospitals board.

It would appear certain that by the gradual development of these centres as was found necessary, the experience gained from one being used in the construction of another, much less money and labour would be wasted than by the erection of a standard form of clinic in all places.

With regard to equipment, the same principle holds good. Suburban and most small country places at present send patients needing X-ray examination or electrocardiography to the nearest centre which possesses these facilities. The new service should start on this basis; but such centres as were found to require small portable X-ray units could later be supplied with them, and from the knowledge gained in the preliminary survey of medical equipment, a great deal could be done by distribution before mass purchases became necessary.

#### *Control of Entrants into Service.*

The most important material required by the national medical service would be a flow of young medical men into it; and it would soon be found that the present fluctuations in the number of students qualifying annually would not fit in with the needs of the service. It would not be advantageous to the service should an insufficient number of men be offering to fill the places vacant, and it would be disastrous to the young men if they should have spent years and money in training, only to find that no opportunity for starting medical work offered to them when they qualified. Some degree of regulation and control of the flow of entrants would very early be found essential; and it is obvious that this control would have to act before the student had committed himself to the long course of training. The commission would therefore probably find that it had to select its recruits at the stage of university entrance, and train them at the commission's expense. The natural way would be for their fees to be paid to the university by the commission; this course of action would present no obstruction, in theory at any rate, to the right of any man who wished to be trained and taught in medicine for its own sake. It may be said that there is no need for this alteration in procedure to come into being with the start of the new national service; but it will be apparent that it would be found necessary very soon afterwards.

#### *Other Problems.*

When the medical services of the country were changed from an individual trading basis to a national salaried service basis, the remaining problems which faced the State medical commissions at the commencement would demand attention. These problems are the relation of the new medical service to (i) the nursing profession, (ii) the hospital services, (iii) the non-medical side of public health.

In the full development of surgeries and clinics, a relatively large number of trained nurses would be required, and they would probably be engaged on a weekly salary basis at the start. It would, however, be a natural development for the medical commission to find it advisable to give many or all of them permanent appointment under

the commission, with a scheme of transfers and promotions adequate to make their career a definite entity. If this action were successful and attractive, it is likely that the State medical commission would become a large employer of trained nurses, and it would be important that it should work in collaboration rather than in rivalry with the other great employer of nurses, the hospitals organization. The future development of this question can be better imagined than forecast; but the medical service, the nursing profession and the hospitals service would obviously have to act in concert.

This is especially evident in the case of the hospital service, on the location, construction and efficiency of whose buildings so much of the purely medical planning depends. If the voluntary system of support for hospitals was abandoned, the need for local committees and separate organizations would be much less, although it would probably be advantageous to retain something of them at any rate. And hospital administration is an art so different from medical work that some separate organization of hospital management would probably remain for that purpose. The medical service must always be intimately concerned with the building and equipment of all hospitals, and particularly with their relation to surrounding medical needs, and it must also be entirely responsible for the provision and working of their medical staffs. The State medical commission must therefore have a large voice—probably even the largest voice—in the decisions on these matters, and the problem for the future will be the welding of the two bodies into one control. The problem might be solved in different ways. In one State a joint hospital planning committee might be constituted from the medical and the hospital boards. In another the hospital board might be merged into a hospital administrative section of the medical commission. In a third the two bodies remaining separate might do their planning by consultation and conference. So long as jealousy and rivalry are kept out and goodwill prevails, the actual form of collaboration does not greatly matter. But the second of the three courses of action would seem to offer the greatest chance of avoiding jealousies and rivalries, and to my mind it appears to be the solution that will actually be adopted in the future. By its adoption, the medical service would become the only employer of trained nurses on a large scale, and the problems of relationship with the nursing profession would be on the way to solution.

The question of the future relationship of the national medical services to the present departments of public health is less easy to answer. Public health activities are at present divided into two parts, which are largely separate. One is the practice of preventive medicine and the protection of the public from disease; the other is the implementation of the various health acts, and customs and quarantine regulations, pure food and drugs inspections, air and lighting regulations, and so forth. The preventive medicine side could be simply and easily brought into the national medical service. A member of the area committee, trained in public health measures, would supervise activities in this direction, which would be carried out largely by active medical practitioners as part of their regular work. Medical education would include preventive medicine as a real and living subject, and young men posted to individual surgeries would be expected to carry out public health measures as part of their ordinary duties. The work should by this means be well and effectively done, and the medical profession as a whole would be more aware that prevention of disease is an actual part of their normal function.

The other branch of public health activities is not medical and should be carried out by non-medical personnel acting under the orders of either the director of public health in the State medical commission, or the Commonwealth commissioner of public health acting apart from the State organization. If the latter were, as it would be reasonable to suppose he would be, appointed from among the State directors of public health, he should have sufficient knowledge of the State medical organization to give a good background for his work.

PHOTO-RETINITIS IN ANTI-AIRCRAFT LOOKOUTS.<sup>1</sup>

By JAMES FLYNN, F.R.A.C.S., D.O. (Oxford), D.O.M.S. (London).

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PHOTO-RETINITIS or retinitis from bright light is a thermal lesion of the macula caused by looking with unprotected eyes at the flash of a short-circuiting of a strong electric current or by looking directly at the sun. Looking at the sun with unprotected eyes usually produces a number of cases in civilian practice on occasions of solar eclipse, and I have seen one private patient with the condition resulting from the advice of an unqualified practitioner to look at the sun as "a health-giving exercise".

Since the outbreak of war I have observed the condition in naval men who became affected in the course of their duty. Hostile aircraft frequently approach their objective in the line of the sun—that is, with the sun behind them and with its incident rays on the objective. It follows therefore that anti-aircraft lookouts and similar personnel must look directly at the sun.

Photo-retinitis is caused by the infra-red rays and the visible rays, as the ultra-violet rays are almost completely absorbed by the cornea and the lens and so do not reach the retina. The infra-red rays and the visible rays do in fact produce a burn of the retina at the fixation point. The site of concentration of incident radiant energy within the eye depends upon the size of the illuminating source. When one looks directly at the sun, which on account of its distance is equivalent to a small-sized source, its high intensity of radiation, owing to refraction by the optical system of the eye, is concentrated on a focus at the macula. The whole of the radiant energy which has penetrated the ocular media is absorbed by the pigment epithelium, from which a destructive lesion spreads anteriorly to the rods and cones and posteriorly to the choroid. The pigment cells eventually disappear, only disintegrated pigment being left. Protection may be afforded to personnel engaged as anti-aircraft lookouts by such measures as the following: (i) the wearing of tinted spectacles; (ii) the holding before the eyes of a screen of tinted glass, about six inches wide by four and a half inches long, in a strong wooden frame with a handle at the bottom, somewhat similar to a boudoir hand mirror; (iii) the use of binoculars with tinted filters. Incidentally, these measures also provide protection against glare. The importance of having and of using some such protection as those mentioned and the reason for their use should be emphasized to all concerned.

In the matter of tinted glasses, one is confounded by the number of available tints, although the reasons for their use in ophthalmic practice, in industry and in the Services are strictly limited. There are many tints with different trade names, but with similar physical properties. Possibly the war may lead to their standardization, so that it will be possible to group tints with certain physical properties under one grade irrespective of its manufacturer. A sub-committee of the British Standards Institution in collaboration with the National Physical Laboratory in 1936 went into the subject of protective glass for industry (welders *et cetera*). The specification technically known as "B.S.S. 679—1936" was the result. In it, protective tinted glasses are classified into five grades according to the radiations absorbed by them. Limits for the maximum transmission of both infra-red and ultra-violet radiations are laid down, so that a glass can be ordered by its grade alone. Similarly, in 1938 the United States Department of Commerce published a recommendation (C.421) of the National Bureau of Standards regarding the desirability of standardizing tinted glasses according to their absorbing powers. But so far manufacturers generally have not adopted these recommendations for standardization.

<sup>1</sup>A post-graduate lecturette, delivered under the auspices of the New South Wales Post-Graduate Committee in Medicine on August 17, 1942, at Sydney.

Clinical observation and investigation are needed to determine the amount of absorption of the spectrum that is necessary for the protection of the eyes in this new occupation of looking directly at the sun, which is connected with present-day aerial warfare. Here we must realize the possible duration of single-time exposures that may be required in certain circumstances and also the possibility of a cumulative effect.

My opinion at present is that Crookes B2 tinted glass will meet our requirements. Crookes B2 glass is made by the addition of various metallic oxides to the constituents of glass, so that much of the heat radiations and the visible rays and incidentally practically all the invisible ultra-violet rays are cut off and too much light is not obscured. Also it is satisfactorily standardized, and this is obviously important for the Services. I do not imply that all other tints are unsuitable, but I wish to avoid the detailed consideration of various tints, as I am at the moment mainly dealing with the general principle of protection for the eyes.

## Reports of Cases.

Of course, sometimes "in action" everything does not go according to plan, and damage is done. As an example the details of a rating thus "hurt" are given:

CASE I.—E.S.A., an ordinary seaman, aged eighteen years, reported to me in the sick bay of an Australian cruiser on September 26, 1940, stating that at 8.30 p.m. on September 24 he "noticed a blur in the middle of the sight of right eye". On September 23 and 24 we had been in battle, during which hostile aircraft approached our ship in the line of the bright sun of the tropics. This rating was an anti-aircraft lookout. He did not report on September 25, as we were still in action.

On examination, vision of the left eye was found to be  $\frac{6}{6}$ . When he looked at the centre of a Snellen's test chart with the right eye the type appeared as in Figure 1; he had a central positive scotoma. Examination with the ophthalmoscope revealed a white, rounded area at the macula, with some pigment in a circle around it. This area was well defined and localized. On being questioned, he said that he thought he had used his "screen of smoked green glass properly". The fact that his left eye escaped may be due to its having been screened or possibly closed. He was excused from lookout and all upper deck duties, employed "tween decks" and given Crookes B2 goggles to wear.

On October 2, 1940, his vision was the same. The white rounded area at the macula had now become very red. On October 14, 1940, his vision was the same. The red rounded area at the macula had now become pigmented and black. He was granted a "hurt" certificate.

On June 27, 1941, he was seen at a routine letters shaded eye examination. He said that the vision of were not seen. his right eye was the same as when he had last been examined by me, but he was suffering from metamorphopsia. On examination, vision of the left eye was found to be  $\frac{6}{6}$ . The vision of the right eye was exactly the same as when he first reported. In the right macula was seen a pigmented scar of the same size as the original lesion.

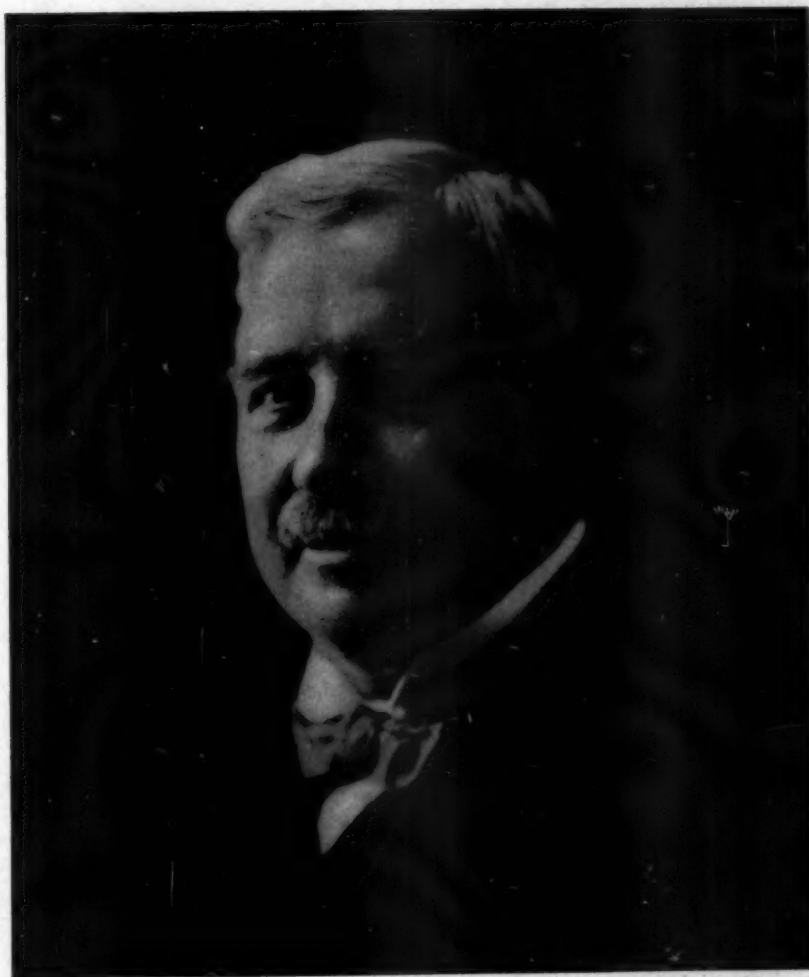
When an affected person comes under observation immediately, as this patient did, the diagnosis is obvious; but the aetiology may not be so clear when, through the exigencies of service conditions, the patient is not examined by an ophthalmologist until months afterwards. Here are brief details of such a case:

CASE II.—X.Y., an able seaman, aged twenty-one years, was referred to me on January 7, 1942, complaining of "a blur in the right eye for eight months" and of symptoms of metamorphopsia. On June 4, 1941, he had been referred from his ship to an ophthalmic specialist with the following note: "This rating has been complaining of blurred vision in the right eye for some time past." The ophthalmic report was as follows: "Right Vision  $\frac{6}{30}$ . Left Vision  $\frac{6}{6}$ . I cannot improve his right vision with any lens. Media and fundi are normal. This eye is partially amblyopic. There is no real proof that the condition has been present only a few weeks."



FIGURE 1. The letters shaded eye examination. He said that the vision of were not seen. his right eye was the same as when he had last been examined by me, but he was suffering from metamorphopsia. On examination, vision of the left eye was found to be  $\frac{6}{6}$ . The vision of the right eye was exactly the same as when he first reported. In the right macula was seen a pigmented scar of the same size as the original lesion.





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On examination, vision of the right eye was found to be  $\frac{4}{20}$ , but this was achieved only when the patient turned his eye slightly off the object—that is, by para-central fixation. Vision of the left eye was  $\frac{5}{20}$ , nearly, and this was achieved similarly by para-central fixation. The ophthalmoscope revealed exactly the same picture at the right macula as was the end result in Case I; there was in addition a small, greyish-white spot slightly to the lateral side of the fovea. In the left macula there was a tiny deposit of pigment. The objective findings were such that I inquired into the patient's duties, war zone and other circumstances existing when the condition was first noticed. It turned out that at the time of the onset he had been an anti-aircraft lookout in an Australian cruiser in the Mediterranean at a rather hectic period. The fact that the left eye almost escaped may be due to the same reasons as I have suggested in regard to Case I. As his vision was below naval standard for his rating, I recommended medical survey with a view to his being invalided, and expressed my opinion that the condition was photo-retinitis.

It is conceivable that this rating may have been seen by an ophthalmologist who, unfamiliar with the rating's duties, did not elicit the history, and possibly the aetiology of the retinal condition may have been diagnosed as constitutional rather than as due to a war injury.

#### Discussion.

Although my experience has been limited to the Navy, it would appear that similar conditions apply to the other Services, particularly in the zones where Australians are engaging the enemy.

A quite different clinical entity, photophthalmia, is a condition of the anterior part of the eye characterized by burning pain, lachrymation, photophobia, blepharospasm and oedema of the conjunctiva. It is due to certain ultra-violet rays and is outside the scope of the present communication.

#### Summary.

1. Photo-retinitis is discussed and examples of its occurrence in anti-aircraft personnel are given.
2. The need for protection of the eyes of personnel whose duty necessitates their looking at the sun is emphasized.
3. Attention is drawn to photo-retinitis as a war injury entitling the sufferer to a war pension.

#### Addendum.

The following two cases, which occurred after the above contribution was prepared, are added, as they are considered so illustrative. The patients' written statements are purposely given in full for the benefit of Service medical officers.

CASE III.—L.P.S., able seaman and anti-aircraft gunnery rating, aged twenty-one years, was referred to me on September 5, 1942, complaining of a blurred patch in the centre of vision present since August 24, 1942. His written statement was as follows:

Whilst serving in the Solomons Zone, on August 24, at about 2 p.m., E.B.W. [Case IV] and myself were given the Sun Sector to watch, as an enemy dive bombing attack was expected. We were the only two ratings employed as Sun Sector Look-outs. E.B.W. and myself arranged to look out for 10 minutes alternately. We both used the same sun glass screen. The glass seemed no where near dense enough, and the sun was as bright as can be for the first ten minutes, then on the sun's face could be seen a big dark disc with a little bright ring around it. The sun was then easy to look at, as it was for the most part dark. On looking away from it, I found the black object I had seen on the sun's face ever in front of me. It blocked my view of a ship on the horizon, the ship hid behind the black thing, but I could see the ship if I didn't look straight at it. When I looked at a ship near us, the middle part was missing. The extent that the black patch covered depended on the distance away of the object looked at. When I looked at a ship's signalling lamp, it immediately disappeared into the black patch.

Rather worried about not being able to see things that I wanted to, I tried looking at different objects. Signal Halyards appeared broken in the centre, red and white

lights appeared alike when I looked straight at them. I informed my Officer of my trouble, and I reported to the Sick Bay next morning. My eyes were not sore at all, just the same as usual, but for the black blob. I was given dark goggles to wear, and I was excused all upper deck duties.

My eyes have remained the same ever since. The black blob still hides things, and when studied on the horizon, the blob appears like a burning match when dropped on shining brass or copper, a sort of blue colour running into yellow, and then a purplish black in centre. The size of blob appears the same.

On examination, the visual acuity of each eye was found to be about  $\frac{4}{20}$ , and when the patient looked at the centre of a Snellen's test chart with each eye, the type roughly appeared as in Figure I. He had a central positive scotoma in each eye. At each macula there was a well-defined and localized round red area with tiny spots of pigment in it.

CASE IV.—E.B.W., able seaman and anti-aircraft gunnery rating, aged twenty-one years, was referred to me on September 5, 1942, complaining of a blackout in the middle of his sight present since August 24, 1942. His written statement was as follows:

On August 24, at about 2 p.m., I and L.P.S. [Case III] were ordered to look out on the Sun Sector for dive bombers coming out of the sun. We were the only two ratings employed as Sun Sector Look-outs. We agreed to relieve each other every 10 minutes. We both used the same protective glass screen. After about two spells of looking, I noticed that it did not hurt me to look at the sun, as it was covered up by a black patch (or what appeared to be one). We continued to do this job for a couple of hours.

I noticed on looking at an object that I could see the ends, but not the centre, which seemed to be blacked out. In addition to using the sun glass screen, I was wearing sun glasses all day on August 24. The original black-out part in my eyes has remained the same size, but now seems more greyish than black.

On examination, the visual acuity of each eye was found to be about  $\frac{4}{20}$ , and the patient had a central positive scotoma in each eye roughly similar to that present in Case III. At each macula there was a localized, round, reddish area. Compared with that present in Case III, this area was not so red, but had more pigmentary disturbance in it.

In both cases a diagnosis of photo-retinitis was made and the patients are being kept under observation. I have not seen the "sun glass screen" used by these ratings, but I have requested that it be sent for examination of its spectrum-absorbing properties, as obviously it did not provide adequate protection.

The importance of the problem—namely, to decide what is adequate protection for the eyes of men engaged as sun sector lookouts, and then to insist on the use of approved type of protection—is further exemplified by these two cases.

## Reviews.

### OPHTHALMOLOGY.

THE fourth edition of "A Handbook of Ophthalmology", by Humphrey Neame and F. A. Williamson-Noble, maintains the standard of this deservedly popular work. Indeed, so detailed and comprehensive are some of the sections that the authors do themselves a disservice in so insistently declaiming that the book is intended for undergraduates and general practitioners. This is the only criticism possible of the book, taken as a whole, for with its expansion it tends to fall between two stools, being too detailed for its avowed object and not quite full enough for use as a text-book by the specialist.

Not enough stress is laid on the value of sulphapyridine in the treatment of *ophthalmia neonatorum*, nor upon the

"A Handbook of Ophthalmology", by Humphrey Neame, F.R.C.S., and F. A. Williamson-Noble, F.R.C.S.; Fourth Edition; 1942. London: J. and A. Churchill Limited. Medium 8vo, pp. 336, with 12 plates, containing 46 coloured illustrations and 143 text figures. Price: 18s. net.

supreme importance of plotting the visual fields in every case of papilloedema. No mention is made of zinc ionization for Mooren's ulcer nor of atropine in the treatment of scleritis.

Operations are well described, a refreshing feature, for many surgeons seem to lose the *tactus eruditus* when they substitute the pen for the knife. In particular, the description of cataract extraction is given simply and clearly, though in the "combined operation", a point missed is reposition of the iris pillars before as well as after expression of the lens, so as to avoid jamming portions of iris and of lens capsule in the section area. Another small but very useful procedure that could well be included is the sub-conjunctival injection of a minim of 4% solution of cocaine hydrochloride five minutes before operation, so as to obtain iris anaesthesia in cataract and glaucoma operations. The illustrations are plentiful and good, while the therapeutic section is excellent.

#### ENCEPHALOGRAPHY.

"ENCEPHALOGRAPHY", by Dr. Graeme Robertson, is the second of a series of monographs issued under the aegis of the Walter and Eliza Hall Institute of Research in Pathology and Medicine.<sup>1</sup> Its origin is therefore in some sense a guarantee of its quality.

The monograph is probably the most useful and readable variety of medical literature. From its very nature it is the product of specialized experience in a limited field often embodying the results of new research and indicating the relations of any new discoveries to older knowledge. Such essays are often comparatively modest in compass, but when well written, they always form a comprehensive yet succinct statement of our total position in regard to the subject under consideration. A monograph properly accomplished is therefore a scientific stocktaking of our position brought right up to date, on a basis of personal knowledge and experience.

But not every monograph is every man's meat. The specialized and limited monograph such as this, is filled with technical detail and the prime requisites in the reader are an interest in the subject concerned and a necessity for instruction therein. Given these two initial urges, then the monograph is the easiest path to specialized knowledge. It lacks the diffuseness of the text-book with its dull "scissors and paste" flavour and should breathe through its pages the personal interest which initially inspired its production. It lacks the lightness of the short article which all may read in an odd half-hour with pleasure and profit, but to those with a real yearning for detailed and complete information, the monograph is the "publication of choice".

The application of such methods as encephalography to the examination of the brain has caught the radiologist completely unprepared in all the fundamental concepts of neurological physiology, anatomy and pathology upon which interpretation must be based. If he is to cooperate with the neurologist as he does with the physician and surgeon, he must take heart and read such books as this monograph, for it forms an excellent introduction to the subject. His only other resource is to vacate the field, haul down his flag and write "see films" on his neurological reports when they come his way. But he must remember that if he does it in this field, he will later have to do the same in other fields as they develop, for the legitimate field of the diagnostic radiologist is the whole field of medicine and surgery and not only its easy and established branches.

Considered as a monograph, "Encephalography" has most of the merits of its kind. Dr. Robertson describes fully his own technique with a reasoned explanation of its fundamental principles. The outstanding virtue of his method is that it directs the air into the ventricles without any confusion from overlying shadows in the cisterns and cortical pathways. The films reproduced have therefore a consistent clarity rarely seen by other methods. Where visualization of the cisterns and cortical pathways is desired, slight modifications in positioning produce this result. Particularly interesting is the ease with which the author apparently fills the fourth ventricle—so important in the diagnosis of tumours of the posterior fossa.

Altogether four chapters are devoted to technical methods and general principles. Five further chapters deal with the

appearance of the injected air in the various parts of the ventricular and intraventricular pathways. The anatomy of each compartment is described and ranged alongside the illustrative film by means of extremely lucid and valuable coloured line diagrams. From the interpretative point of view this feature is particularly valuable. Clinically illustrative case histories are then given usually with the film reproduction.

A concluding short chapter deals with the value of encephalography, with its limitations and dangers. In this connexion in the preface Dr. Robertson writes: "One insuperable difficulty rests upon the fact that it (encephalography) shows no difference between anatomical variation and minimal pathological change." This, however, is true of all branches of radiology and the first task of every radiologist is to learn all the normal departures from ordinary average anatomy. In the brain, these variations are still largely unknown, but with experience they will become familiar and encephalography will then become a more potent and more certain aid to diagnosis. The use of "insuperable" therefore seems unduly pessimistic. It is also true, as Dr. Robertson elsewhere states, that the method gives only anatomical and not pathological information.

The radiological interpretation of any film anywhere is never more than a detection of anatomical change. The pathological finding is a deduction based upon a consideration of this anatomical change and of the clinical features of the patient. The writer's rather pessimistic assessment of the limitations of encephalography is no more therefore than a practical realization of those radiological realities which exist throughout the whole field of diagnostic radiology.

Properly considered, X-ray examinations do not make diagnoses, they only furnish contributing data for the diagnostician, and that is as true in encephalography as elsewhere, whether the facts elicited be of negative or positive values. Dr. Robertson has no need therefore to be disappointed, for his contribution is one of great value and plainly indicates that encephalography is a powerful addition to the total diagnostic armament of the neurologist, even if it is in no sense a diagnostic method in itself.

This monograph should certainly be carefully read by everyone interested in the subject from either a neurological or radiological viewpoint.

#### ACUTE INJURIES OF THE HEAD.

MR. ROWBOTHAM'S text-book arrives at a most appropriate time following a long silent period in the literature of acute head injuries.<sup>2</sup> As a neurological surgeon of Geoffrey Jefferson's school, he may be regarded as an authority on this subject. The scope of the text is considerable and the author deals in an original manner with such widely separated problems as the mechanics of cerebral trauma, current theories of cerebral concussion and electro-encephalography in the investigation of post-traumatic states. The whole subject has been included in two hundred and seventy-seven pages of well-illustrated text matter and forms an excellent reference manual for those who have had little special neurosurgical training. This is particularly the case with the section on surgical technique, and Army and Air Force medical officers, posted to operational areas, will find it of great value.

With many details of theory and practice some difference of opinion will obtain amongst other specialists in this field, but, with perhaps one exception, these do not reduce the merit of a publication of this character which must necessarily represent the author's background and personal experience. However, the early use of morphine (one-quarter of a grain, page 112) to control restlessness is quite contrary to current practice, at least in this country. This drug is known to increase intracranial pressure, has a selective depressant action on the respiratory centre, may mask impending stupor and not infrequently excites the patient further. It offers nothing which cannot be obtained by paraldehyde given *per rectum* or "Dial" given parenterally. Mr. Rowbotham qualifies the position by stating that drugs are better withheld and with this view general agreement will be found.

The book is excellent and should find a place in every practitioner's library.

<sup>1</sup> "Encephalography" (Monograph Number Two from The Walter and Eliza Hall Institute of Research in Pathology and Medicine, Melbourne), by E. Graeme Robertson, M.D. (Melbourne), M.R.C.P. (London), F.R.A.C.P.; 1941. Melbourne: Macmillan and Company Limited. Crown 4to, pp. 118 with 68 illustrations.

<sup>2</sup> "Acute Injuries of the Head: Their Diagnosis, Treatment, Complications and Sequels", by G. F. Rowbotham, B.Sc. (Manchester), F.R.C.S. (England), with a foreword by N. M. Dott, M.B., Ch.B. (Edinburgh), F.R.C.S. (Edinburgh); 1942. Edinburgh: E. and S. Livingstone. Crown 4to, pp. 309 with 124 illustrations. Price: 25s. net.



## The Medical Journal of Australia

SATURDAY, OCTOBER 31, 1942.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: Initials of author, surname of author, full title of article, name of journal, volume, full date (month, day and year), number of the first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

### THE SUPPLEMENT ON WAR MEDICINE AND SURGERY.

THAT use of the term "war medicine and surgery" is justified will be granted by anyone who has examined the question critically. The normal human body reacts to an infective process or to trauma in the same way during war as it does in peace, but in war the concurrent and environmental conditions are both complex and diverse; in other words the perspective is changed or the outlook is clouded, and an entirely new approach is often imperative. There is nothing new, for instance, in the acquisition of a malarial infection by a traveller in tropical regions when he goes there for the first time from a country with a temperate climate. It is a different matter when those who venture into the tropical regions are troops in considerable numbers charged with the weighty task of overcoming and ejecting a well-provisioned and determined enemy. Again, compound fracture of the femur is a relatively common, though serious, accident in civil life. It is a different matter when the compound fracture is caused by a gun-shot wound in battle, when the wound may be infected by gas-forming organisms, when appropriate treatment cannot always be applied without undue delay, and when the injured man is needed in the ranks of front-line fighters. Burns are fortunately not very often seen in civil medical practice. In the warfare of today and in air raids they occur very frequently and the malignant ingenuity of man is so great that burns are more often than not severe. The fact that they are so often followed by surgical shock, a condition seldom seen in civil practice outside the walls of hospitals, makes their study supremely important to the practitioner. The occurrence during air raids of conditions caused by blast and of nervous and mental symptoms has added two important subjects to the list of those belonging to the special category of war medicine. The list could easily be pro-

longed, but to no purpose. When the civil population is not affected by war, the study and practice of war medicine and surgery are the special province of medical members of the fighting forces. There must be few, if any, countries the health of whose civil population is not indirectly affected or at least menaced by the present world war. When war actually comes to a country, as it has come to Australia, war medicine and surgery claim or should claim the attention of every practising doctor within its boundaries. It is important to remember the mental attitude of the army medical officer to a battle casualty. This was well described in a recent editorial in *The Australian and New Zealand Journal of Surgery*. In this article B. K. Rank was stated to have put the matter in a nutshell when he wrote that "many battle casualties are still potential fighting men and it is essential that maximum functional results are obtained in minimum time". The army medical officer (and also, of course, the medical officer of navy and of air force) knows that his first duty is to do everything that lies in his power to keep up the fighting strength of the armed forces. If preference in treatment has to be shown, it must be shown to the man who is capable of recovery within a reasonable time and of rejoining his fighting unit. Sympathies must be put aside and considerations of efficiency take their place. It was stated in the editorial already mentioned and with every justification, that though this change of mental attitude is not always easily attained, its attainment is possible without sacrifice of the qualities which go to make a faithful surgeon. The medical practitioner who is charged with the care of the civil population has not to make this reorientation to anything like the same extent, but he cannot allow sympathy to take invariable precedence over considerations of efficiency. The "home front" is real. The men of the fighting forces cannot be expected to succeed if they are not supplied with the best possible means of subsistence and equipped with reliable and ample munitions of war. The civilian doctor who does his duty will not lose sight of this fact when he is treating a worker on the home front.

If the medical practitioner is to give adequate treatment to persons injured, for example, in an air raid, he must have a thorough knowledge of the methods of treatment; he must also understand the nature of the pathological process for which the treatment is being given and the way in which the therapeutic measures act. That a great deal that is new has been elaborated during this war in the treatment of disease and of wounds is common knowledge. Special books have been published and every medical journal in every country has had numerous articles containing information, some of which is reliable, some of which is confused, and some of which is useless. Many writers seem to think that results obtained in a small series of cases are applicable to all cases of the same condition regardless of the severity of the lesion or the environmental conditions associated with it; dogmatic statements are made and are accepted by the unwary as true. That articles relating the experience of one or of several men in certain conditions are useful is undoubted, but their usefulness depends very often on the discrimination and judgement with which they are read. In order to give to the medical men of Australia a concise and reliable account of recorded experience in war medicine it has been decided to issue every two weeks with *THE MEDICAL*



JOURNAL OF AUSTRALIA a special supplement on war medicine and surgery. The first supplement appears in the present issue.

The supplement is the direct result of discussions held at the last meeting of the National Health and Medical Research Council. The council had before it special reports from various sources including those from subcommittees working under the National Research Councils of Canada and the United States of America and the Medical Research Council of Great Britain. The National Health and Medical Research Council thought that the material contained in these reports was so important that it should be made known to Australian medical practitioners. The material was noted as being voluminous and would therefore require to be abstracted, condensed and edited. It was decided to appoint a Committee on the Survey of War Medicine. The committee as appointed consists of Dr. J. H. L. Cumpston (Chairman), Dr. Harold Ritchie, Professor H. R. Dew, Dr. E. Sydney Morris and the Editor of THE MEDICAL JOURNAL OF AUSTRALIA. At its first meeting the committee discussed the various methods of collecting, condensing and presenting the information contained in the reports already mentioned as well as the information which is becoming available from many other sources. It resolved that a Junior Research Fellow should be appointed and that his duties should include: (a) the examination of medical journals with the special object of selecting recorded experience relating to medicine and surgery under war conditions; (b) the reception and collation of recorded experience as received by the Commonwealth Department of Health from abroad; (c) the reception and collation of records of experience forwarded by the fighting services or by the health departments. Dr. Colin White has been appointed Junior research fellow. The committee thought that special emphasis should be laid on practical experience rather than on theoretical discussions. The statements prepared by the Research Fellow will receive the approval of the committee before they are published. It was also decided that the best medium of publication was a special supplement to THE MEDICAL JOURNAL OF AUSTRALIA. The Australasian Medical Publishing Company, Limited, offered through the Chairman its full cooperation and the facilities of the journal. The advantages of a supplement are obvious. It will be a loose-leaf insert in the journal and the several copies may therefore easily be bound separately if desired. To facilitate this the pagination of the supplements will be consecutive and a separate index for the supplement will be issued with the half-yearly index of the journal.

In commending these special supplements to the careful study of readers we would point out that they are intended for all practitioners whether they are engaged in general or in special practice. None of us knows what the future holds in store and every medical practitioner, senior and junior, specialist and general practitioner, must hold himself or herself ready to face any kind of medical emergency associated with warfare. We have read that "resource, quickness in decision, speed of execution . . . are indispensable to the successful practice of war surgery". These qualities will be needed by any medical practitioner in a wartime emergency. The Committee on the Survey of War Medicine trusts that its efforts will be of service to those who aim at efficiency.

## Current Comment.

### INFLUENZAL MENINGITIS.

INFLUENZAL meningitis is one of the many dread diseases that have lost much of their terror since the advent of the sulphanilamide group of drugs. The change in the mortality rate is strikingly demonstrated by the investigations of Evelynne G. Knout, William J. Mitchell and Paul M. Hamilton, of the contagious disease unit of the Los Angeles County Hospital.<sup>1</sup> During the period from 1931 to 1941, 63 patients suffering from influenzal meningitis were admitted to the Los Angeles County Hospital. These have been divided into four groups: those treated symptomatically, those treated with antiserum, those treated with sulphanilamide, and those treated with sulphapyridine. It will be noted that the groups were apparently arranged in chronological order according to the therapeutic era in which they appeared. The first group consisted of nineteen patients, fifteen of whom were under the age of six years. All died. Five lived for less than 24 hours after admission to hospital; the longest period of survival was six weeks and the shortest three hours; the average was six and six-tenths days. Treatment consisted in the administration of sedatives and antipyretics and the parenteral administration of fluids.

The second group consisted of nineteen patients, twelve of whom were under six years of age. All were given influenzal antiserum by intramuscular, intravenous or intraspinal injection. When the intraspinal route was used, 15 to 25 cubic centimetres of antiserum were administered once or twice a day. It is not clear whether the serum was given to the one patient intramuscularly or intravenously as well as intraspinally. When the intravenous route was used 100 to 200 cubic centimetres of antiserum in 200 to 300 cubic centimetres of normal saline solution were given every eight hours. All patients in this group died. There was no evidence that serum prolonged life.

The third group consisted of thirteen patients, nine of whom were under the age of six years. These patients were given sulphanilamide orally and subcutaneously and influenzal antiserum intramuscularly and intraspinally. One patient recovered. A striking feature of this group was the prolongation of life after the infection. The average period in hospital was fifteen and a half days. If the patient who recovered is excluded this average comes down to a few hours short of twelve days, as compared with less than seven days in the group which received symptomatic treatment only. The child who recovered was given massive doses of sulphanilamide. The administration of the drug was discontinued at the end of ten days because of the appearance of jaundice and severe anaemia. The concentration in the blood ranged from 2.0 to 13.0 milligrammes per 100 cubic centimetres of blood, and in the spinal fluid from 7.0 to 15.0 milligrammes. We wonder whether procaine hydrochloride was responsible for the comparatively high concentration in the spinal fluid. The authors do not mention whether local anaesthesia was employed. The child attended the out-patient department two years later, when she was apparently quite well.

The fourth group consisted of twelve patients, the oldest of whom was eight years and the youngest three months. Three patients died, aged twenty months, two years and three years respectively. The first of these patients died in three days, despite the oral administration of 25 grammes of sulphapyridine. The second lived for two and a half months, during which she was given 50 grammes of sulphanilamide and 587 grammes of sulphapyridine, in addition to influenzal antiserum. At autopsy purulent material was found at the base of the brain, and considerable softening of the brain tissue and dilatation of the ventricles were noted. The third of these patients lived for three weeks after admission to hospital. He was given three grammes of sulphanilamide and 268 grammes of sulphapyridine. All the patients in this group received large

<sup>1</sup>The Journal of the American Medical Association, June 27, 1942.

doses of sulphapyridine. In the earlier cases of the series the drug was given orally; but in the later cases it was given intravenously. In addition antiserum was given to all patients but one; but Knouf, Mitchell and Hamilton, in view of its failure in an earlier series, do not attribute any reduction in the mortality rate to its use.

At the Los Angeles County Hospital intravenous administration of sulphapyridine by the continuous drip method is instituted as soon as the diagnosis of influenzal meningitis is made (usually a matter of a few hours only). The drug is given in a 0.5% or 1.0% solution in isotonic saline solution, the object being to produce as high a concentration as possible in the blood and spinal fluid within the first twelve hours. The dose for the first twenty-four hours should be two to three grains per pound (0.13 to 0.2 gramme per 450 grammes) of body weight, and from one-half to two-thirds of this should be given in the first three or four hours. A concentration of at least ten milligrammes per 100 cubic centimetres of blood should be aimed at. It may reach 20, 30 or 40 milligrammes, and in one case in this series it reached 50 milligrammes, without apparent ill effect. The concentration of the drug in the blood is estimated daily, and the dosage regulated accordingly. Intravenous administration is not usually necessary for more than 72 hours, after which the drug may be given orally; but it should be noted that the intravenous route is always employed at the commencement, whether the patient is capable of taking the drug by mouth or not. Administration of sulphapyridine is continued for a fortnight after failure to culture organisms from the spinal fluid.

Knouf, Mitchell and Hamilton do not hesitate to perform lumbar puncture whenever they feel that it might provide information of value. They have never seen any harm come from this procedure provided it has been carefully carried out. On the other hand it might do much good by revealing unsuspected abnormalities in the cerebro-spinal fluid. "On many occasions we have done a spinal puncture on a patient who was afebrile and uncomplaining and had no meningeal signs only to find a change in the fluid." Every patient is subjected to lumbar puncture at least ten times, the record being 69 times in 75 days. The operation is performed twice during the fortnight after cessation of treatment. A blood count is done and the urine is examined on alternate days. Attempts are made to render the urine alkaline. It is notable that in the fourth group of patients mentioned in this record no severe toxic effects were observed despite heroic doses.

It is unfortunate that a really valuable contribution such as this study by Knouf, Mitchell and Hamilton should be marred by what appears to be carelessness in composition. For example, in their first group, they do not make it clear whether every patient was given serum intramuscularly, intravenously and intraspinally; they merely say: "It was given intramuscularly, intravenously and intraspinally." This is a point of some importance; for if it was given intraspinally only to any particular patient it would have been given in much smaller doses than to other patients. Again, in discussing a case in their third group, they state that "the patient received a total of 9,350 c.c. of 1 per cent. sulfanilamide solution, or 1,402½ grains". Actually, 9,350 cubic centimetres of a 1.0% solution contain 93.5 grammes, or twice 1,402½ grains. In another place they state that a patient entered hospital on March 14 and died on April 4 and was given 268 grammes of sulphapyridine "in a thirty-eight day period". He must have been given sulphapyridine for seventeen days before he entered hospital; if this was so it should have been stated. Notwithstanding these inaccuracies the paper is interesting as showing the prognostic transition from hopeless to hopeful through four therapeutic eras. It is also of value in showing the good results that may be expected from massive doses of a specific drug in influenzal meningitis. We note that Knouf, Mitchell and Hamilton do not mention the possible effects of the administration of the large quantities of fluid that are necessary to carry the required amount of sulphapyridine into the blood. In order to get ten grammes of sulphapyridine a child would need 1,000 cubic centimetres of a 1.0% solution.

#### POLIOMYELITIS FOLLOWING TONSILLECTOMY.

THE unnecessary sacrifice of large numbers of tonsils with no consideration of the risks involved either in the operation or in the complications which may ensue, has been condoned by many on the grounds that a latent septic focus may be removed and that the patients may be expected to benefit thereby. The exponents of such hit or miss prophylactic operations should be interested in two papers recently published in which it has been shown that there was apparently a causal relationship between the removal of the tonsils and the development of the bulbar type of poliomyelitis. W. Lloyd Aycock<sup>1</sup> has concluded from his figures that there was a definite causal relationship in the time interval corresponding to the incubation period of the disease; and he draws attention to the interesting fact that in his series the relative frequency of the occurrence of the bulbar as compared with the spinal form of poliomyelitis was greater in all ages in persons giving a history of previous tonsillectomy. This hazard of bulbar rather than spinal poliomyelitis hardly constitutes *per se* a contraindication to tonsillectomy, but it does indicate the necessity for recognizing the existence of such a risk and for basing the decision to operate on well-established criteria. The factors operating to render some individuals susceptible to the virus are put poorly understood; nevertheless it would appear, as Aycock points out, that the condition of the naso-pharyngeal mucosa at the time of exposure to the virus is important in this respect. This author also makes the reasonable suggestion that since the time for the performance of tonsillectomy can practically always be chosen, changing the season when the operation is done so that it will not coincide with the expected seasonal increase of poliomyelitis would help to eliminate numbers of cases of the infrequent but distressing and highly fatal bulbar form of the disease.

The history of the unfortunate family reported by Thomas Francis, Karl Krill, John Toomey and Walter Mack<sup>2</sup> leaves little doubt that in this family there was a definite relationship between the operation of tonsillectomy and the development of the bulbar form of poliomyelitis. Of the six children the five oldest were subjected to tonsillectomy. Nine days later one of the children operated on became ill and grew progressively worse, and within thirteen days of the operation the five children who had been apparently healthy and on whom operation had been performed, were all acutely ill; all developed severe bulbar poliomyelitis and within seventeen days of the operation three of them had died; the other two children survived. The parents and the child who had not been operated on showed no signs of illness, although the faeces of this child, but not of the parents, contained the virus, as did also the faeces of six out of seven cousins with whom the children had been in contact. There had been no recognized association of any of these children with any other children exhibiting frank poliomyelitis. Of the playmates of the sick children only three out of 28 showed the virus in the faeces and in none of them did a febrile disturbance or paralysis result. These authors suggest that incident to the trauma of the operation the pharyngeal nerves were rendered more susceptible to infection and the bulbar paralysis was probably related to direct extension of the virus along the cranial nerves. The probability of this is borne out by the fact that the transmission of the virus to other children in whom there was not the precipitating factor of operation, did not result in the development of a clinical form of poliomyelitis.

The dangers inherent in tonsillectomy during the acute phase of scarlet fever or rheumatic fever are well recognized, but the risk of initiating a flare-up of an acute poliomyelitis during an epidemic has usually been overlooked, and in this country in which we are subject to such epidemics it would be well if at least those tonsillectomies which fall into the category of luxury operations were avoided during these periods.

<sup>1</sup> *Medicine*, February 21, 1942.

<sup>2</sup> *The Journal of the American Medical Association*, August 22, 1942.



## Abstracts from Medical Literature.

### DERMATOLOGY.

#### Cutaneous Leishmaniasis (Oriental Sore).

K. G. DWORK (Archives of Dermatology and Syphilology, April, 1942) surveys the literature and reports four cases of cutaneous leishmaniasis. The disease is rife in Asia Minor and in the southern Mediterranean countries. Endemic centres are Bagdad (Iraq), Aleppo (Syria), Crete, Cyprus, Delhi and Jericho (Palestine). The author states that one may reasonably expect this disease to be a souvenir of many men in the armed forces of Great Britain, Germany and Italy who have been in the Near East. Cutaneous leishmaniasis begins as a papule on the face, neck, hand, leg or other exposed part. The surrounding area is erythematous, and the lesion may at first resemble an insect bite. There is no pain or tenderness. The next stage is the development of an ulcer at the site of the papule. This has a sharp raised and indurated border and granulation tissue at the base. A heavy brown crust appears over the ulcer and serous fluid is discharged. Cutaneous leishmaniasis is caused by *Leishmania tropica*, and is carried by a vector thought to be the sandfly or the bed-bug. The incubation period is said to vary from a few weeks to three years, although it is more likely to be from two to six months. Leishmania is an oval or round body  $2\mu$  to  $4\mu$  in diameter containing a small round nucleus and a short rod-like blepharoplast. In the early stages of ulceration the parasite may be seen readily if the discharge is smeared on a glass slide and Giemsa's stain is used. When the ulcer is older and secondarily infected, the leishmanias usually can be found only by puncturing the edge of the ulcer with a capillary pipette or by biopsy. The diagnosis outside endemic areas should be made only by the discovery of the parasite. Amongst usual forms of treatment are application of antiseptic ointments and washings, administration of antimony preparations parenterally or beneath the ulcer by injection, cauterization, Röntgen irradiation and freezing with solid carbon dioxide.

#### Dermatophytosis of the Hands.

E. EPSTEIN (Archives of Dermatology and Syphilology, June, 1942) discusses the diagnosis and prognosis of dermatophytosis of the hands. He states that the concept of dermatophytid has obtained universal acceptance. For a long time the extreme swing of the pendulum has almost forced the physician examining a patient with an eruption on the hands and feet to classify the lesions on the hands as a phytid. Therapy based on this reasoning often failed to produce the desired results. The author conducted systematic mycological examinations of all patients with inflammatory lesions of the hands seen in private practice. Typical hyphae were demonstrated in 5-6% to 7-8% of these patients. The therapeutic significance of this observation is obvious, indicating that such lesions of the hands are frequently due

to fungi. In such cases it is necessary to apply fungicides locally to obtain the optimal results. The author states that in 80% to 90% of such cases the eruption on the hands can be classified as one of three distinct types: 1. The squamous type cleared early and showed no tendency towards recurrence. 2. The vesicular type responded rapidly to treatment by fungicides, but tended to recur. 3. The hyperkeratotic type was resistant to therapy. Mixed types sometimes occurred. The diagnosis of dermatophytosis of the hands must rest on laboratory investigation.

#### Treatment of Scabies with "Rotenone".

E. EPSTEIN (Archives of Dermatology and Syphilology, May, 1942) has investigated "Rotenone" as a remedy for scabies. This substance is derived from derris root. Fifty consecutive patients with scabies were treated by the local application of 2% "Rotenone" in a mucilage of quince seed, Irish moss and chloroform. Cases in which acari could not be demonstrated microscopically or in which the clinical manifestations were not typical were not included. About one-third of the patients were under ten years of age. The patients were instructed to take a warm bath and then to apply the lotion all over the trunk and extremities. This was repeated twice a day without subsequent bathing until the completion of treatment. At first the treatment was applied on two successive days, but it was soon found that the routine use on four successive days led to more satisfactory results. Boiling of clothes and other prophylactic measures were advised. The advantages of the "Rotenone" lotion are: (a) it is a reasonably active agent, (b) it is more pleasant to apply than ointment, (c) the odour is negligible, (d) it can be used full strength for children and (e) it can be used in the presence of a mild dermatitis due to sulphur or benzyl benzoate. Disadvantages include the facts that most patients require four days for a cure and that the drug may lead to the development of a secondary contact dermatitis. The author states, however, that evidence of internal complications has not followed the local application of 10% "Rotenone" ointment in man. There were 15% of cases which failed to respond to the treatment. The author quotes Saunders's method of employing 3% of derris root in water and soap chips which secured good results in ninety patients with scabies. The latter preparation contains only 0-3% of "Rotenone". The most serious objection to the use of the 2% lotion of "Rotenone" is its ineffectiveness in combating the complicating pyoderma.

#### The Treatment of Athlete's Foot.

In The Journal of the American Medical Association of June 37, 1943, it is stated under "Current Comment" that in the issue of that journal of December 6, 1941, there appeared a clinical note by White on the use of a mixture of equal parts of phenol and camphor in the treatment of athlete's foot. More attention has been drawn to this treatment by the appearance of an article in the May, 1942, issue of the Reader's Digest entitled "A Working Cure for Athlete's Foot". The journal issues a warning against the promiscuous and unsupervised use of equal

parts of pure phenol and camphor in the treatment of athlete's foot. Under date of May 29 the Food and Drug Administration issued a "Federal Drug and Cosmetic Act trade correspondence letter" warning readers that in its opinion a mixture of equal parts of phenol and camphor is capable of producing necrosis and is too dangerous for indiscriminate use. Its sale should be limited to prescriptions. Further, that if it is sold commercially the labels should bear warnings to the effect that the article should not be applied to damp skin or over extensive areas, should not be applied under bandages, and that if the skin turns white or is otherwise discoloured, use of the prescription should be discontinued immediately unless the physician directs otherwise.

#### Millaria Rubra.

R. R. LAWIS (Journal of the Royal Army Medical Corps, February, 1942) describes the symptoms of *millaria rubra* as a burning sensation and intense itching. The rash is characterized by the occurrence of innumerable red spots, minute pin-point to pin-head size, with tiny central vesicles containing turbid fluid. The spots are not as a rule elevated. They do not coalesce. Areas affected are the trunk and proximal segments of the limbs, most commonly on the back and chest. It is more common in males and comes on suddenly after profuse sweating. The author is of the opinion that the process is primarily physiological since two unvarying factors in causation are always present: (a) a hot humid climate, (b) a profuse sweater. One without the other will not produce the condition of prickly heat. The process at first is a mechanical one. Later secondary infection from scratching may occur. Predisposing causes are: (a) the wearing of excessive clothing, more especially flannel next to the skin; (b) the presence of seborrhoea. In regard to treatment the author advises that clothing should be as light as possible and that anything causing the slightest irritation of the skin should be avoided. The patient can eat and drink what he likes. The author states that ordinary dusting powder compound of zinc oxide, boric acid and starch is useless. But add to it an equal quantity of sulphur sublimate (ordinary flowers of sulphur) and a cure will be obtained. The ingredients should be thoroughly titrated in a mortar and then rubbed through a fine sieve in order to obtain complete mixture. The affected parts should be sponged over with water, dried and the powder thereafter dusted on with cotton wool. The process should be repeated on several occasions on the first day and it will be found that it is not frequently necessary on the second day. Application should be continued till all the lesions have disappeared and at the first recurrence the powder should be used again.

### UROLOGY.

#### The Local use of Cod Liver Oil in Vesical Tuberculosis.

A. L. BANYAI (Urologic and Cutaneous Review, February, 1942) has been using cod liver oil for the topical treatment of tuberculous lesions of various parts



of the body for the past eight years. With regard to its use in tuberculosis of the bladder, it is presupposed that a tuberculous kidney, epididymis or testis has been removed. The instillation of warmed cod liver oil into the bladder has been found to induce symptomatic relief and satisfactory organic changes in the ulcerating type of vesical tuberculosis. The oil does not need sterilization. Tubercles in the bladder are not influenced by this treatment, and it should not be used unless ulcers are present. One patient, whose case history will later be published in full, was given regular instillations for five months, and then died of pulmonary tuberculosis. Post-mortem examinations show complete healing of an extensive ulcerative vesical tuberculosis. The amount of oil instilled varies from half an ounce to two ounces, depending on the irritability and the capacity of the bladder.

#### Calcium Deposits in Calyces.

K. T. KJØLHEDE AND H. K. LARSEN (*The Journal of Urology*, January, 1942) have reviewed Randall's theory of the genesis of renal calculi, and also previous studies concerning the deposition of calcium on renal papillae. As a result of the examination of the kidneys from 135 necropsies, the authors do not agree that Randall's papillary lesions are new pathological entities. In 86 of 259 kidneys examined, several kinds of calcium deposits were found. In fourteen instances calculi were found, but in six the papillary lesion was absent, and in only one example did a papillary deposit of calcium salt appear to have contributed to the development of the calculus. Since calculi are often found in kidneys without such deposition, the deposits of calcium cannot be of essential significance in the genesis of calculi. The authors conclude that a deposit of calcium salts at the most can be a *locus minoris resistentiae* in the development of renal calculi, but that such calculi most frequently are the result of wholly different factors.

#### Acute Epididymitis.

PERIVASCULAR injection with a local anæsthetic agent in an oily vehicle is advocated by R. Lich (*The Journal of Urology*, February, 1942) for acute epididymitis. The base consists of a 0.5% solution of "Nupercaine". The duration of anæsthesia is four to eight days. In experiments on dogs the ingredients injected individually and collectively caused a minimal amount of tissue response. In 147 cases injection into the sheath of the vas promptly relieved the pain. The author believes that perivascular injection is unnecessary. This injection is symptomatic treatment only; the primary cause of the epididymitis must also be treated.

#### The Teleprobe.

THE teleprobe is the name given by W. A. H. Council (*The Journal of Urology*, February, 1942) to an instrument designed to detect ureteric calculi which escape discovery by routine methods. The author estimates these at 30% of the total. The instrument consists of an audio-amplifier connected into the detector circuit; a shielded cable envelops the microphone line, which is connected to a Piezox crystal "pickup". A teleprod, a flexible bougie

with a special tip, is attached to the "pickup". Contact with any solid body produces an audible click and also registers on a ticker tape. The author describes the instrument as highly sensitive, and when correctly handled, almost infallible. It can be used for the detection of calculi within the renal parenchyma by the use of a fine teleprod. Its scope includes the detection of foreign bodies in other tissues, and it is therefore applicable to general surgery.

#### Calcification of Vasa Deferentia.

O. S. LOWSLEY AND P. J. RIABOFF (*The Journal of Urology*, March, 1942) record a case of calcification of the ampullæ of the vasa deferentia. The patient suffered from carcinoma of the prostate with bilateral hydronephrosis and hydroureters. The calcification in the vasa was detected radiographically and proved by injection of an opaque solution into each vas. Treatment consisted of transurethral resection of the prostate.

#### Renal Carbuncle.

K. MOONEY (*The Journal of Urology*, March, 1942) discusses the treatment of renal carbuncle, and points out that nephrectomy is only occasionally indicated, drainage of the carbuncle being usually preferred. Where a large perinephric abscess due to carbuncle is present, simple drainage of the abscess is inadequate; if the surgeon is confident that the condition is due to carbuncle, it is better to make a complete exploration by mobilization of the kidney. If the major portion of the kidney is grossly destroyed by single or multiple lesions, or if the general condition of the patient is so poor as to demand immediate relief from toxæmia, immediate nephrectomy is carried out. However, if one-third or less of the parenchyma is destroyed, the author advises incision and drainage or partial nephrectomy. The carbuncle may be shelled out with comparative ease from its capsule of inflammatory tissue. Bleeding is controlled by gauze packing brought out through a drain in a loosely-closed wound. Shock from such an operation is much less than that following a difficult nephrectomy.

#### Physiological Basis of the Neurogenic Bladder.

J. P. EVANS (*The Journal of the American Medical Association*, December 6, 1941) recapitulates the various levels of control of bladder function. At the highest or cerebral cortex level is the fully integrated mechanism of micturition; it is subject to inhibition by the person who can suppress the desire to void for variable periods of time, and can initiate micturition at will. At the next level of function, roughly at the mid-brain, micturition occurs subconsciously, and without the exercise of the will, but may still be very well coordinated. At the spinal level, following recovery from spinal shock, a fairly well coordinated activity develops in time. In typical cases the tone of the bladder muscle is increased, the bladder capacity is smaller than normal, and the emptying not complete. Such neurogenic bladders are influenced by cutaneous stimuli reaching the central nervous system in the isolated spinal cord segment, and they affect the lower reflex arc. This explains the

sudden emptying of the bladder that may occur from the penile manipulation preceding catheterization. Finally, there is the completely isolated bladder, the autonomous bladder which displays an ill-coordinated activity, which is devoid of spinal reflex implications because of being isolated from the spinal cord. Among practical considerations emphasized by the author are the following: (i) The bladder muscle should never be allowed to stretch unduly, for then, like skeletal muscle, it is less able to respond to nervous activity. (ii) A stretched bladder wall is more prone to infection, and the resulting fibrosis may interfere with resumption of motor activity when nervous control is restored. (iii) The bladder muscle, like the skeletal muscle, can be benefited by passive exercise. This is achieved by applying the Munro type of tidal drainage.

#### Surgical Diseases of the Kidney and Hypertension.

M. GARDNER (*Urologic and Cutaneous Review*, February, 1942) states that hypertension remains one of the most important of the unsolved problems of medical science. Its incidence is very high, and grave effects accompany it. In 1934 Goldblatt showed that sustained experimental hypertension could be produced in animals by creating renal ischemia by means of a clamp on the renal artery. The hypertension apparently results from liberation of a pressor substance, for it is not prevented by severing all nerve connexions. Later, hypertension was observed in the later phases of pyelonephritis, and here the vascular changes were found to be well developed and diffuse. The author agrees with the following criteria for nephrectomy laid down by Schroeder and Fish: (i) The onset of arterial hypertension should be known to have occurred recently, say, not more than two years before. (ii) The renal lesion should be unilateral, and should have caused diminution in function on that side. (iii) Retinitis should be absent, and changes in the calibre of the retinal vessels only minimal. (iv) Arterial pressure should be persistently elevated. The investigation of all hypertensions for urological lesions has been stimulated by recent studies, but the author considers that our knowledge as yet is so incomplete that the indications for nephrectomy should still remain primarily urological, and not medical.

#### Intrarenal Kidney Pelvis in Hypertension.

S. I. SARNOFF (*The Journal of Urology*, June, 1942) has investigated a series of hypertensive patients by excretion urography to determine the incidence of intrarenal pelvis. He found one or both pelves to be intrarenal in 40% of the hypertensive group and 30% of the normal group. In regard to Ravich's recent theory of the cause of hypertension, this variation is thought to be insignificant. It is also pointed out that periarterial pressure must reach that of the diastolic blood pressure before it has any influence on the diastolic, systolic or pulse pressure. It is very unlikely that the pressure within the urinary tract would ever reach even 75 millimetres of mercury, which is the minimum required to influence the renal circulation.

## Special Article.

(Contributed by Request.)

### SUBSTITUTES FOR QUININE IN OBSTETRICS.

WHEN it was suggested to me that I should write an article on the substitutes for quinine in obstetrics, I was both willing and unwilling. I was willing because I feel that somebody should try to clothe the stark nakedness of the National Security commandment: "Thou shalt use quinine for naught save malaria." I was unwilling because, outside the university, I have never presumed to tell my colleagues how to do anything and do not wish, even in the present circumstances, to depart from that attitude. However, it is clear that we obstetricians must try to find some way of accomplishing for the time being certain ends for which we previously used quinine. We can therefore "come and reason together" about the matter.

I take it that we all agree that in obstetrics quinine finds two uses: (i) as an adjunct to the induction of labour; (ii) as a component of the quinine, ergot and strychnine mixture or tablet (Q.E.S.).

Let us dispose of number two first. The absence of the quinine element will reduce the efficiency of "Q.E.S." to some extent, but ergot is still a good uterine contractor and in the treatment of cases of uterine sepsis one of the sulphonamides is a more useful drug.

The loss of an old friend in induction of labour will be felt more keenly. As a profession we are very whole-hearted. Any "Erasms" produces a feeble echo in our thorough British make-up. At the outset, therefore, we must adjust our minds to the inevitable fact that any attempt on my part to offer a complete substitute for quinine is marked down before I start as unlikely to satisfy those who from years of practice have come to rely on an old friend. What I have in mind to do, is not to offer another drug—I cannot—but to discuss other ways of bridging this obstetric gap.

The most successful mode of induction of labour is rupture of the membranes, *plus* pituitrin or pitocin. Of latter years it has largely replaced medical induction by quinine; the old story of a "dry labour" no longer holds water. It is simple and reliable to an extraordinarily high degree, shortens labour in many cases and has not caused an increase in puerperal sepsis or foetal complications.

There are several ways of rupturing the membranes as a means of induction of labour. Each person's method has some advantage, possibly theoretical, over the others. The difference in the operation as carried out before and during labour is due to the tenseness of the membranes during a "pain". The absence of this tense bag of waters renders the operation a little more difficult before labour has started. For this reason, while a stylette or knitting needle may be an excellent instrument whereby to puncture the membranes during labour, a multi-toothed volsellum is more satisfactory in the average case of induction.

Let us proceed. A 5% "Dettol" douche beforehand stills the antiseptic conscience. Put the patient in the lithotomy position, under light anaesthesia. For a placid *multipara* anaesthesia may possibly be dispensed with, but as a general rule it is kinder to the patient, and in the particular case in which you strike a little difficulty, easier for yourself.

Having swabbed the vulval opening with "Dettol" or other antiseptic, get the nurse to squeeze a liberal helping of "Dettol" cream over the index and middle fingers of your gloved right hand. I like then to separate the labia with the thumb and forefinger of the left hand protected by swabs rung out of "Dettol" solution, and hold the "examining fingers" immediately above the vaginal inlet so that the excess cream runs into this opening which is further treated with antiseptic by the nurse squeezing more cream into it. The fingers then pass into the vagina through an antiseptic wall of cream which is also a beautiful lubricant. Wherever the wandering finger may get during the operation, any organism introduced has some "Dettol" cream to keep it company.

Insert the index finger (sometimes the middle one seems more comfortable) through the cervical os and separate the membranes from the lowest inch of the uterine wall by sweeping the finger around inside the internal os. This can always be done by inserting the finger through the internal os up to the first interphalangeal joint. A little bleeding occurs here, but I regard this as a close imitation of Nature's "show", both in appearance and in mode of production. A sort of bag of waters is thus produced.

At this stage a volsellum or other appropriate instrument may be passed along the examining fingers through the os and the membranes ruptured.

This to all people after a bit of practice is not so difficult—with some it is the routine method: *chacun à son goût*. If you get caught in a "blackout", this routine may be necessary, but if you have eyes it would seem a good plan to use them. I prefer to put in an Auvard's or Sims's speculum. (A speculum is an eye-opener very often and should be used much more frequently than is the case in pelvic examinations.)

The volsellum (its jaws closed and its head crowned with some "Dettol" cream) is now safely threaded through the cervical canal until it touches the foetal head. Now by a little pressure keeping the volsellum against the foetal head, open the jaws a good inch and close them again. If a gentle firm contact against the head is maintained, the membranes will be punctured. This may be quite unconvincing because there is sometimes very little liquor escaping at this stage. If you are doubtful about your having "done the deed", open and close the volsellum a second or even a third time. I know a very good obstetrician who feels much less doubtful if he withdraws a few foetal scalp hairs on the volsellum!

A small but important practical point: it is surprising how wide a separation of the handles of the volsellum you have to make in order to obtain an inch separation of the jaws. As this end is not seen, one's impression is liable to be quite misleading. Try it outside the vagina.

Sometimes it is helpful (and perfectly permissible) to steady the cervix by lightly grasping its anterior "lip" with another multi-toothed volsellum.

Complete the operation by putting the "dettolled" finger through the cervix, through the small rent in the membranes, thereby enlarging it. This manoeuvre is often accompanied by escape of quite a bit of liquor.

Let as much liquor out as possible—the certainty of onset of labour is heightened by the amount of liquor evacuated. In some cases in which very little has escaped one can gently "ease" the head up a little by pressure of the fingers. "Easing" it as little as a quarter of an inch will often prove very effective. It is not necessary to pack the cervix.

Some folk leave the induction at this. Simple rupture of the membranes will be 80% successful in its object. It will be practically 100% if you add a hypodermic or intramuscular injection of pituitrin (or pitocin, if the blood pressure is raised).

This may be given in a variety of ways—one as good as the other. A suggestion is to give three minims every half-hour for five doses (one cubic centimetre in all). It is important to leave an instruction (preferably written) that the injections cease immediately "pains" appear.

Give the first injection while the patient is still under the anaesthetic. Remember that needle pricks are painful and a woman in labour deserves every bit of consideration. Very often two or three injections are all that are required. I have more than once seen "pains" appear before I have left the patient.

Most women will come into labour within six to twelve hours, *multiparae* very quickly as a rule, *primiparae* with less certainty.

I hope I shall be tolerated for the amount of detail into which I have gone. I do this because of my frequent disappointment with text-books which appear so fat with information until you look for the details of some procedure, and then you usually have to discover them yourself. The small details often mean the difference between a passable and a really satisfactory operation.

Some people perform the operation with the patient in the left lateral position, some without an anaesthetic, some with instruments other than those I have described. Well! there are a dozen different ways of doing a circumcision and the same statement applies to "rupture of the membranes". The method I have described is not from a text-book. It has been most effective in a very large number of cases, and has not on any occasion been followed by foetal or maternal complications (prolapse of the cord or puerperal sepsis).

In three special types of case, however, it is unwise to use this method: (i) suspected disproportion, (ii) "floating" head, (iii) malpresentation.

In these cases quinine may be desirable, but is it absolutely essential? It is difficult to give an honest "Yes" to this question. In suspected disproportion induction of labour by quinine is not by any means a solution of the difficulty. Many patients refuse to come into labour at the time we decree they should and hundreds of grains of quinine can be wasted in this manner. Trial labour and Caesarean section are an alternative.



Trial labour is likely to be a more satisfactory test of Nature's ability when it is spontaneous in onset than when induced.

The retort may be made that this will mean a rise in the number of Caesarean sections. I do not think so; if it does it will be a very small rise. Human judgement is difficult and the vast majority of suspected disproportions turn out to end in normal or instrumental deliveries.

A "floating" head in a severe toxæmia or other complication of pregnancy will be a knotty problem. If disproportion can be confidently excluded, one might consider the employment of bougies, although as a mode of induction I dislike them.

In malpresentation the risk of prolapse of the cord precludes the use of rupture of the membranes. Skill in obstetric manipulation, not induction of labour, is the solution of this difficulty.

What other possibilities are there in induction of labour?

A modified medical induction might be tried by the use of castor oil, one ounce, an enema, warm bath and five half-hourly injections of three minims of pituitrin or pitocin. Such a measure should be employed with restrained optimism.

The uterus might be "sensitized" by preinduction administration of stilboestrol. Professor G. Shedden Adam has dealt with this subject in a communication to this journal of August 29, 1942.

My sympathies are with those doctors outside metropolitan areas who at present are carrying on the work of two or more. Many a doctor has lost his peace-time partner or the "fellow he could often have a chat to" in a worrying situation. I do not wish to be misunderstood. This does not imply lack of ability or confidence. By no means—all with experience understand what I mean without any further analysis.

There will arise from time to time the complicated pregnancy or labour in which a discussion with someone—not necessarily having any greater knowledge than oneself—would be very useful. These problems cannot be listed in an article such as this. It is likely that their number will increase with the introduction of the quinine difficulty.

To help in this way I should suggest that a committee of obstetric consultants be appointed in every capital city who would be available at any hour to give honorary telephonic assistance to any doctor who, because of geographical or other disadvantage, has not ready to hand a consultant in person or access to the sanctuary of a large public hospital. At any rate, there is the suggestion. I am sure the consultants will not hesitate to proffer, as the other practitioners will not spurn to accept, the assistance.

By realizing that "no quinine" means a medical austerity of war, by adjusting our minds and cooperating, we shall weather the storm, consoling ourselves with the knowledge that this condition of affairs is only for a time.

BRUCE MAYES,

Flight Lieutenant, Royal Australian Air Force, Professor of Obstetrics (on leave), University of Sydney.

## The Royal Australasian College of Physicians.

### MEETING IN SYDNEY.

A MEETING of the Royal Australasian College of Physicians was held in Sydney on Friday and Saturday, September 25 and 26, 1942. Meetings of the Council, the Board of Censors, the general body of Fellows and scientific sessions were included in the programme.

At a meeting of the general body of Fellows, Dr. Lucy Bryce, of Melbourne, Victoria, was elected to Fellowship of the College under Article 40 and will be admitted at the next meeting.

On the recommendation of the Board of Censors, the following candidates who had been successful at the examinations for membership held in Australia and New Zealand during 1942 were admitted by the President to Membership of the College: Dr. R. A. M. Allen, Dr. Harry Daly, Dr. M. Feld Deck, Flight-Lieutenant K. S. Harrison, R.A.A.F., Dr. Karen Helms and Dr. T. E. Hester Spark, of New South Wales; Captain D. Arnot Davis, A.A.M.C., of

Queensland; Flight-Lieutenant J. de Vidas, R.A.A.F., of South Australia; Dr. James H. Young, of Western Australia; and Dr. S. Graham Aitken, of Wellington, New Zealand.

The following contributions were given at the scientific sessions:

Dr. F. Guy Griffiths: "Sir Isaac Newton: The Tercentenary of His Birth."

Surgeon Lieutenant-Commander J. K. Maddox: "Vitamin C Reserves of Australian Naval Ratings."

Dr. John Eccles: "Treatment of Disuse Atrophy of Muscle," Dr. H. Maynard Rennie: "The Place of Bronchoscopy in the Treatment of Lung Abscess."

Major W. L. Winzenwerder, 118th General Hospital, United States Army: "The Treatment of Seasonal and Perennial Hay Fever and Asthma."

Dr. Frank S. Hansman: "Chronic Dermatitis from Wearing Apparel."

Dr. A. J. Canny: "Giant Cell Reticulo-Myelosis."

Major A. Medwyn Hutson: "The Diagnosis and Treatment of Chronic Meningococcal Septicæmia."

### THE FIFTH ANNUAL MEETING.

The fifth annual meeting of the College will be held in Melbourne in April, 1943. Provided a sufficient number of candidates is offering and if circumstances permit, an examination for membership will precede the meeting.

## Correspondence.

### "MUST THERE BE A REVOLUTION IN MEDICAL PRACTICE?"

SIR: Your contributor, Dr. Alan E. Lee, and your correspondent, Dr. H. Boyd Penfold, and others who oppose a radical change, ignore in their arguments two considerations fundamental to the problem: (i) The essential inequity of the present method of private practice. (ii) The march of scientific progress.

What the people need is health. What do we general practitioners give them? A patching-up service when their health has been undermined.

Every man who has private and contract patients, is faced, if he thinks down to essentials, with the fact that his financial interests are vested in the illness of his private patients and in the continued health of his contract ones.

The less often do his contract members fall ill, the more profitable they are, but the more often do his private patients fall ill, and the more severe their illness, the bigger is his income from them.

Were this incidence of illness a matter entirely outside his power, he might take refuge in its inevitability. Both he and his people, however, are becoming more and more aware that much of illness is preventable, and that if some relationship could be devised which would bring people to him at an earlier stage, many lives could be saved and many long illnesses be avoided, expensive operations prevented, and so on.

In many years of advocating reorganization of medical work so that the maintenance of health would be as profitable to doctors as to their patients, I have not met a single one who could suggest any plan short of the revolutionary one. I therefore continue to demand a full medical service on a salaried or contract basis.

On a lower plane we might argue that there must be a revolution in medical practice because there is one in medical knowledge. Prophylactic knowledge has come and is spreading, the public demand for health instead of for treatment is growing. Let us act before it has further destroyed our present means of livelihood.

Yours, etc.,

Gnowangerup.

Western Australia,

October 16, 1942.

STANLEY BOYD.

### FOCAL INFECTION.

SIR: The letter from Dr. Kinsella in your issue of October 17 fulfills a useful purpose in pointing out that tonsillar examination is incomplete until pressure has been first applied.



It should not be inferred (and I am sure Dr. Kinsella does not wish us to do so) that when neither pus nor debris can be obtained on pressure the tonsils should be considered healthy.

To repeat a rather long letter of mine, published in these columns on September 25, 1926, in which I enumerated the indications for tonsillectomy, would be out of place. I would like, however, to emphasize a few points with regard to the indications for tonsillectomy.

1. Where there is a suspicion of focal sepsis the teeth and tonsils should be, in the first place, regarded as the most likely sources.

2. In such cases, if the teeth and gums are healthy, and the tonsils also appear normal and no foci are discovered elsewhere, the examination should be repeated more than once, at as long intervals as practicable. At a subsequent examination one frequently wonders how one could have overlooked a tonsil infection which is very obvious later.

3. The tonsil should always be massaged before a swabbing from it is taken for examination for streptococci.

4. The presence of virulent streptococci in a tonsil swabbing may come from other sources of infection in the mouth. A look for these should therefore be made.

5. It has been my experience that far too few practitioners in Australia realise the irreparable injury that may be done when tonsils are removed at a very early age. Tonsillectomy when performed before four years of age frequently stimulates a lymphoid hypertrophy in the walls of the naso-pharynx. Often this leads to an unending series of infections in the ears and sinuses for the rest of the patient's life. I freely admit the fact that some cases of tonsillectomy at such early ages give perfectly satisfactory results, but the harm done in others does not make up for them. Operation on these young children can advantageously be postponed by X-ray therapy applied to the tonsils and naso-pharynx, but one is well advised to seek the assistance of a radiologist who has mastered the technique involved. If he is inexperienced he is likely to underdose the patient for fear of doing the reverse.

6. In a proportion of cases tonsillectomy cannot be called more than an experiment. This should, in fairness, be explained to the patient. The sounder the judgement of the surgeon, the fewer of these experimental cases will prove failures.

I regret one can but touch the fringe of the subject in such a communication, but I trust the above will prove a useful supplement to the point made in Dr. Kinsella's letter.

Yours, etc.,

A. B. K. WATKINS, M.S.  
(Lond.), F.R.C.S. (Eng.).

Commercial Bank Chambers,  
Bolton Street,  
Newcastle,  
New South Wales.  
October 21, 1942.

## Naval, Military and Air Force.

### THE OCCURRENCE OF MALARIA IN SOLDIERS ON LEAVE.

The following minute on the occurrence of malaria in soldiers on leave is published at the request of the Director-General of Medical Services.

At the present time many men are going on leave in Australia who have recently returned from New Guinea or the neighbouring islands where malaria is endemic.

When these men return to the mainland their blood is examined for malarial parasites and if any are found the men are admitted to hospital and given an intensive course of treatment. If no parasites are found in the blood the men are allowed to go on leave, but it must be recognised that attacks of malaria are quite likely to occur and may be severe. It is important, therefore, that all medical practitioners should be on the lookout for such cases and should suspect malaria when any of these men develop sudden illness, remembering that malaria may be very protean in its manifestations.

If at all possible the man should be sent at once to the nearest military hospital for treatment, but if this is impossible or the man's condition renders transfer unsafe, it is very desirable that blood films should be taken before the first dose of any antimalarial drug is

given. These films should be sent clearly labelled to the nearest military hospital for examination by a pathologist.

If antimalarial treatment is begun before films are taken the identification of the parasite is rendered much more difficult.

In all cases the soldier should be sent to a military hospital as soon as his condition permits.

The cooperation of all civil practitioners along these lines would be greatly appreciated.

### APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 274, of October 15, 1942.

#### CITIZEN NAVAL FORCES OF THE COMMONWEALTH.

##### Royal Australian Naval Reserve.

**Appointments.**—Graham Henry Bernard Brooke, William Francis Cooper and Edward Preen Cordner are appointed Surgeon Lieutenants, dated 7th September, 1942; Victor Macky Hercus and Brian Oxenham are appointed Surgeon Lieutenants, dated 12th September, 1942.

#### ROYAL AUSTRALIAN AIR FORCE.

##### Reserve: Medical Branch.

The following are appointed to commissions on probation with the rank of Flight Lieutenant with effect from the dates indicated: Warren Robert Brodrick, M.B., B.S. (6823), 4th September, 1942; George Harvard Cranswick, M.B., B.S. (6821), 6th September, 1942; John Patrick Garvan-Hurley, M.B., B.S., F.R.A.C.S. (6820), 15th September, 1942; Andrew Gavan Gibson, M.B., B.S. (6822), 17th September, 1942.—(Ex. Min. No. 165—Approved 14th October, 1942.)

### CASUALTIES.

ACCORDING to the casualty list received on October 22, 1942, Captain P. Jensen, A.A.M.C., Mount Morgan, is reported removed from the seriously ill list.

### Obituary.

#### GREGORY SPROTT.

THE late Dr. Gregory Sprott, whose death was announced recently in these pages, was one who gave many years of devoted service in the public life of the medical profession in Australia. It is to this that we would pay tribute; of his life and work in Hobart Dr. W. E. L. H. Crowther has written with appreciation and first-hand knowledge. Sprott became a member of the Federal Committee of the British Medical Association in Australia in 1914, and he continued to represent the Tasmanian Branch after the Federal Committee became the Federal Council, retiring in 1934. He was also one of the original directors of the Australasian Medical Publishing Company Limited and remained a director till the day of his death. In this way he was intimately associated with the affairs of this journal. Both as a member of the Federal Council and as a director of the company controlling this journal he showed not only keenness and understanding of many diverse problems as they arose, but was quick to grasp details and could look ahead. He was always on the side of any move that was made to increase the effectiveness of this journal as a medium of post-graduate teaching. When he wished to retire from the directorate of the Australasian Medical Publishing Company last year, his brother directors would not hear of his doing so. All who were associated with him in any British Medical Association or journal activity will remember him as a courteous, kindly and efficient counsellor.

Dr. W. E. L. H. Crowther writes:

Macquarie Street, Hobart, was in the early nineties much as it had been for thirty years. In this street practically all the medical men lived and from it they conducted their practices. It was an age when the red lamp lit at dusk told all and sundry that the physician was at home for the

evening consultation and that his services were available for those in need of them. This lamp, by the way, was not put out until 10 p.m. Each morning at the same hour the buggy or other vehicle drew up with the groom in top hat and a livery with metal buttons. He would be joined a little later by his particular employer, himself in a frock coat and top hat, and the round of morning visits would commence. There was as yet no electric light and the trams did not run till 1893. The medical men as a rule had large families who knew each other well, and in almost all instances the practices were long established and the patients constant to the family practitioner, who had, as it were, always attended them. It was into this almost Arcadian setting that Gregory Sprott, a young Scotch graduate, came in 1896. He had been in Tasmania for about three years, at Ulverstone with his friend, Dr. (later Sir John) McCall, and after as junior resident at the Hobart General Hospital.

When it is understood that already he held the M.D. of Glasgow as well as a D.P.H. and had travelled widely, no doubt he realized at once the great opportunities that lay to his hand. His interests were perhaps primarily in public health and what is now recognized as preventive medicine, and each year in Hobart came regularly the annual epidemic of typhoid fever involving large numbers of people. This had always been regarded as normal, but Sprott was quick to appreciate that only drastic changes in the sanitation of the city would provide a remedy. It was through the medical section of our Royal Society that by a series of able papers he was able both to set afoot a movement to remedy matters by the provision of proper underground drainage and to educate the public to the need of other urgent reforms. As a member of the Metropolitan Drainage Board and as the new City Health Officer he was instrumental in the control and suppression of typhoid. He initiated and was for many years in control of the Infectious Diseases Hospital, and of this he made a model institution.

Appointments first as pathologist and after as full "honorary" at the Hobart Hospital paved the way for a very large practice and a reputation as a sound and able surgeon. By the early years of this century his success had been remarkable. He gained appointments to Federal, State, municipal and even country health officerships; there seemed to be no appointments that he did not hold and in addition he had one of the largest private practices. Such success had repercussions and there were men among the older practitioners with large families to provide for, who felt envy and perhaps resentment that so much should go to the one man. From his standpoint he was a tireless worker, with such a gift of organization that his many duties were not only done but done extremely well.

As assistant in all these activities he had in the first place Dr. R. D. Campbell, who later married his elder daughter Mary. Just before the last war Dr. Guy Bailey was also associated. Bailey, who was in the same field ambulance as myself, was killed on the Somme in 1917. Dr. Campbell, after service with the first-aid casualty clearing station on Gallipoli and in France (for which he was awarded the D.S.O.), did not return to Tasmania and is now in practice in Inverness.

I must leave it to another to tell what Dr. Sprott was able to do for the British Medical Association. In this State from the time he first formed the Tasmanian Branch the Association was almost a religion to him and he was one of its most faithful servants.

I remember him first at a children's party held at his home, one of the lovely row of a rose brick terrace, just above our home on the other side of the street. Mrs. Sprott we all, from the first, loved and admired (indeed she was largely instrumental in his husband's splendid career), and for family there were then only the two little daughters, the two boys being born some years later. When established, Sprott moved to the house now occupied by Dr. Giblin (his predecessor there being Dr. C. Walch) and later again to the old bank premises next the Tasmanian Club, where he remained until he gave up private practice.

His latter years must have been very lonely ones. His elder boy Gregory he lost from an appendix, the two girls married and lived far away, and his wife, who had been his constant companion and inspiration, died some fifteen years ago. Yet he was as ever interested in anything relating to the profession and especially to his beloved Association until the end.

Dr. Sprott in his home was a delightful host and the soul of generosity. The house was "open house" to his many friends. I can recall many acts of kindness to members of my own family. On my desk as I write is a travelling clock

which he gave me when I set forth for England as a very young graduate. Alas, we were in opposing camps in medico-political matters during post-war years, when the hospital dispute rent the profession. Yet I am thankful to say that the happy memories far out-distance the others, and towards the end of his life in discussing such things he said to me with his slow quiet smile: "Crowther, I find myself now at peace with all men."

Dr. E. Brettingham Moore writes:

When Dr. Sprott came to Tasmania with his young wife over fifty years ago, it was more to spin out the few years of life that he was told to expect than to build up the career in which he succeeded so well. At that time he had a marked glycosuria which, however, could not have been diabetic, for he neither spared nor dieted himself in all the long and fruitful years that followed.

He was a man of boundless energy and could not bear to waste a single moment of the day. His favourite saying was that the busy man has always time, and indeed his work was so well arranged that he always did find time for any emergency. Although not a brilliant surgeon, as he had few opportunities to watch other surgeons at work, and was largely self-taught, he was one of the pioneers of antiseptic and then aseptic surgery at the old Hobart General Hospital, and I owe to him my early instruction in practical surgery.

His versatility was marvellous. He was responsible for the inauguration of a bacteriological laboratory while a resident in the old Hobart General Hospital and was a prime mover in the use of diphtheria antitoxin.

Soon after he relinquished his position as resident the Board appointed him as honorary pathologist, a position which he resigned to take on whole-time service as medical officer of health of the city of Hobart. In three years he felt that he had put things in fair order and resumed general practice in addition.

From his earliest days he took a keen interest in first-aid and ambulance work, forming the first unit in Tasmania of the Saint John Ambulance Association and Brigade. This unfortunately lapsed in 1923, but Dr. Sprott revived its activities in 1928. For his interest in this direction he was made a Commander of the Order of Saint John in 1931 and a Knight of Grace in 1937.

He was also responsible for the formation of the Southern Tasmanian Ambulance and Transport Service.

Throughout my professional life I have found help in his sound ideas and commonsense approach to difficult problems and I know of many who will miss him as a counsellor and friend. It is the men of Dr. Sprott's character and integrity who build up for the profession that aura which I hope time will never dim.

JOHN ERIC McGLASHAN.

We regret to announce the death of Dr. John Eric McGlashan, which occurred on October 16, 1942, at Perth, Western Australia.

JOHN McNAUGHT SCOTT.

We regret to announce the death of Dr. John McNaught Scott, which occurred on October 20, 1942, at Mortlake, Victoria.

## Australian Medical Board Proceedings.

### TASMANIA.

The undermentioned have been registered pursuant to the provisions of the Medical Act, 1918, of Tasmania as duly qualified medical practitioners:

George, Thomas Woodcock, M.B., B.S., 1910 (Univ. London), Department of Health, Tasmania.  
Waddy, John Archibald, M.B., 1942 (Univ. Sydney), Royal Hobart Hospital, Hobart.



Henning, Richard Winston, M.B., B.S., 1942 (Univ. Sydney), Royal Hobart Hospital, Hobart.  
 Walton, Frank Westlake, M.B., B.S., 1942 (Univ. Sydney), Royal Hobart Hospital, Hobart.  
 De Salla, Eric James Fane, M.B., 1942 (Univ. Sydney), Royal Hobart Hospital, Hobart.  
 Bottcher, Richard James, M.B., B.S., 1942 (Univ. Melbourne), Launceston Public Hospital.

## Medical Prizes.

### THE STAWELL PRIZE.

The trustees of the Stawell Prize have been advised by the examiners that no essay submitted was of sufficient merit to justify the award of the prize for 1942.

## Nominations and Elections.

The undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Stanley, Patricia Julie, M.B., B.S., 1941 (Univ. Sydney), Saint Joseph's Hospital, Auburn.  
 Wilson, Humbert (recommended and approved on February 4, 1942, for registration in terms of Section 17 (2) of the Medical Practitioners Act, 1938-1939), Waterfall Sanatorium, Waterfall.  
 Baker, Joan Helen Gertrude, M.B., B.S., 1942 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

## Medical Appointments.

Dr. Frank Richard Tod Stevens has been appointed Acting Government Medical Officer at Townsville during the absence of Dr. Leslie Halberstater.

Dr. Henry Rogerson has been appointed Director of Mental Hygiene (acting) from October 12, 1942, during the absence on leave of Dr. John Catarinich, pursuant to the provisions of section 10 of the Lunacy Act, 1928, of Victoria, as amended by the Mental Hygiene Act, 1933.

## Books Received.

"The Medical Annual: A Year Book of Treatment and Practitioner's Index", edited by H. Letheby Tidy, M.A., M.D. (Oxon), F.R.C.P., and A. Rendle Short, M.D., B.S., B.Sc. F.R.C.S.; 1942. Bristol: John Wright and Sons Limited. London: Simpkin Marshall (1941) Limited. 8½" x 5½", pp. 516 with many illustrations, some of which are in colour. Price: 20s.

"Report of the Committee on Bed-Bug Infestation, 1935-1940", Medical Research Council of the Privy Council, Special Report Series Number 245; 1942. London: His Majesty's Stationery Office. Royal 8vo, pp. 64 with illustrations. Price: 1s. net.

"Aids to Surgical Anatomy", by J. S. Baxter, M.B., M.Sc. F.R.C.S.I.; Second Edition: 1942. London: Baillière, Tindall and Cox. Foolscap 8vo, pp. 206, with 26 illustrations. Price: 4s. 6d. net.

"A Bibliography of Aviation Medicine", by Ebbe Curtis Hoff and John Farquhar Fulton; 1942. Springfield: Charles C. Thomas. 11" x 7½", pp. 253. Price: \$4.00, post paid.

"A Pocket Medicine", by G. E. Beaumont, M.A., D.M. (Oxon), F.R.C.P., D.P.H. (London); 1942. London: J. and A. Churchill, Limited. 7½" x 4½", pp. 208. Price: 10s. 6d. net.

"Endotracheal Anesthesia", by Noel A. Gillespie, D.M., B.Ch., M.A. (Oxon), D.A. (R.C.S. Eng.); 1941. Madison: The University of Wisconsin Press. 8½" x 5½", pp. 198, with illustrations. Price: \$4.00.

"The Pasteurization of Milk", by G. S. Wilson, M.D., F.R.C.P., D.F.H., with a foreword by Sir Wilson Jameson, M.A., M.D., F.R.C.P., D.P.H., Hon. LL.D.; 1942. London: Edward Arnold and Company. 8½" x 5½", pp. 224. Price: 18s.

## Diary for the Month.

- Nov. 3.—New South Wales Branch, B.M.A.: Organization and Science Committee.  
 Nov. 4.—Western Australian Branch, B.M.A.: Council.  
 Nov. 5.—South Australian Branch, B.M.A.: Council.  
 Nov. 6.—Queensland Branch, B.M.A.: Branch.  
 Nov. 10.—New South Wales Branch, B.M.A.: Executive and Finance Committee.  
 Nov. 10.—Tasmanian Branch, B.M.A.: Branch.  
 Nov. 13.—Queensland Branch, B.M.A.: Council.  
 Nov. 17.—New South Wales Branch, B.M.A.: Ethics Committee.  
 Nov. 18.—Western Australian Branch, B.M.A.: Branch.  
 Nov. 19.—New South Wales Branch, B.M.A.: Clinical Meeting.  
 Nov. 24.—New South Wales Branch, B.M.A.: Medical Politics Committee.  
 Nov. 26.—South Australian Branch, B.M.A.: Branch.  
 Nov. 26.—New South Wales Branch, B.M.A.: Branch.  
 Nov. 27.—Tasmanian Branch, B.M.A.: Council.  
 Nov. 27.—Queensland Branch, B.M.A.: Council.  
 Dec. 1.—New South Wales Branch, B.M.A.: Executive and Finance Committee. Organization and Science Committee.  
 Dec. 2.—Western Australian Branch, B.M.A.: Council.  
 Dec. 3.—South Australian Branch, B.M.A.: Council.  
 Dec. 3.—New South Wales Branch, B.M.A.: Special Groups Committee.

## Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmalm United Friendly Societies' Dispensary; Leichhardt and Peterham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phoenix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federated Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Practice appointments in Western Australia.

## Editorial Notices.

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